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# SETTING FLEXCUT

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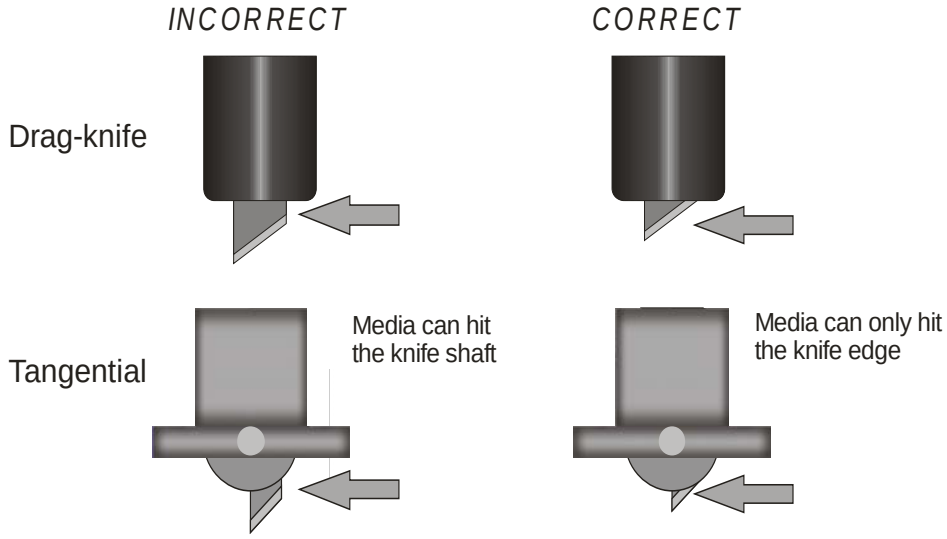
| Step 1: Turn out the knife so that out coming knife tip is longer than the material thickness. |

**Note 1:** never turn the knife so far out, that the media can hit the knife shaft. Only the knife edge may get in contact with the media in order to avoid media crashes.




**Note 2:** Use 60° knives if the media is thicker than the maximum height for standard knives. On tangential units the black nose piece can be used for thicker material. This nose piece is 1mm shorter giving extra free space under the knife.

**Note 3:** On the tangential machines, a double tip knife is recommended for cutting through. This knife is more wear resistant and gives and automatic overcut at the beginning and the end of cut lines.

**Note 4:** It is discouraged to use brand new knives for cutting through. Pressure setting and knife depth of brand new knives change quickly.

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| **Step 2:** Increase the knife pressure gradually until the minimum knife pressure to cut the material completely through is reached. Increase this value with 5-10%. |

In order to do this go to 'Configuration', 'Knife pressure', increase the value gradually and activate the test pattern. Once the minimum knife pressure is known increase the value with 5-10%. (e.g. 170gr → 185 gr.) Remember this value as we will use it later. Stay in the 'Knife pressure' menu.

**Note 5:** If the cutter doesn't have enough pressure to cut the material, it may be possible to cut the material in several passes. This can be achieved by using the panel-replot option. This is an option in panel feature which are described further in this document. However be aware that the internal tests don not take this option into account. Therefore a small square should be sent from your cutting software as test-pattern.

**Note 6:** If the media is deformed by while being cut through, it is advised to use lower pressure and use multiple passes as described in note 5. If the media only deforms when it is pushed forward, this may be solved when using the 'Sorting vector' option which is also part of the panels feature.

| **Step 3:** | Decrease the knife depth gradually until the minimum required knife depth is reached. Finally increase the depth slightly. |
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Turn the top piece of the knife holder a half turn counter clock whise. In the 'knife pressure' menu, press the test to activate the knife-pressure-test-pattern. If the pattern is still cut out completely, repeat these actions. Once the pattern is not cut anymore, increase the knife dept (turning clockwise) with 1/8's of a turn, and perform the test, until you reach the minimum required knife depth.

Now increase (clockwise) the knife depth slightly: ¼ of a turn on Tangential units, ½ of a turn on Drag units.

**Note 7:** Knife depth is an important setting when cutting through. Of course the knife should be able to cut deep enough to cut the material. But if the knife sticks out to much it may damage the cutting strip but there is also a bigger change that the knife gets stuck into the material. Then, when lifting the knife, the material is lifted as well and the media bridges are cut completely which makes the process unreliable. As the knife depth is easier to control on tangential machines, because of the nosepiece, tangential cutting technology is recommended.

| **Step 4:** | Set the knife pressure correctly in order to do standard kiss-cutting. |
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Decrease the knife pressure now until it set correctly as described in the users manual.

**Note 7:** If the job will only contain cutting through data, the setting of the knife pressure is not important.

**Note 8:** On older products, Flexcut uses the standard knife pressure as the Full-pressure. Combining kiss-cutting and cutting through on these models require a different approach.

| **Step 5:** | Activate FlexCut and set recommended values. |
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- Go to 'Configuration', 'Settings', 'advanced cutting', 'Flexcut'

- Select ‘Flexcut mode’ and set it to ‘accurate’
- Select ‘Full pressure’ and set it to the value determined in step 2.
- Select ‘Full pressure length’ and set it to 10 mm
- Select’Flex pressure’ and set it to the value determined in step 4. (if no value is set in step 4, set it to 50% of teh Full pressure value).
- Select ’Flex pressure length’ and set it to 1 mm.

**Step 6:** Optimize FlexCut parameters by changing the Flex-pressure and the Flex-pressure length.

In ‘Flex pressure length’ , press test to cut the test pattern. Check the media bridges. If they are too strong, decrease the length. If they are not strong enough, increase the length. Keep this value within the range 0,5 - 1,5mm. If no good setting are found within this range. Got to the ‘Flex pressure menu’ and vary this value. Increase the value if the media bridges are to strong and visa versa.

**Step 7:** Deactivate Flexcut.

Go back to the ‘Flexcut mode’ menu and set it to ‘Off’

**Note 9:** In this guide it is assumed that the cutting software activates flexcut (like the latest Winplot does). If this is not the case, the Flexcut mode should remain on ‘accurate’.

**Step 8:** Set Panel Size to 5cm.

- Go to ‘Configuration’, ‘Settings’, ‘advanced cutting’, ‘Panels’
- Select ‘Panel Size’ and set the value to 5cm

**Note 10:** There is no test-pattern to check this parameter. 5cm is a rather safe value. When getting more experienced with cutting through certain materials, you may learn to change this value. Increasing this value will speed up the process but requires more solid media bridges in Flexcut. Decreasing the value to 2cm (=minimum) will permit weaker bridges.

**Step 9:** Set sorting vectors to ‘on’

- Go to ‘Configuration’, ‘Settings’, ‘advanced cutting’, ‘Panels’
- Select ‘Sorting vectors’ and set it to ‘on’

**Note 11:** Sorting vectors will optimize the cutting data. It is recommended to cut through simple shapes. When cutting through more complex data, the sorting vector option may cause a lot of head movement.

**Step 10:** Set Panels off

- Go to ‘Configuration’, ‘Settings’, ‘advanced cutting’, ‘Panels’
- Select ‘Panels and set it to ‘off’

**Note 12:** In this guide it is assumed that the cutting software activates panels (like the latest Winplot does). If this is not the case, the ‘Panels option’ should be set ‘on’.