

SummaCut Maintenance

To ensure optimal quality of the cutter, the cutter needs some attention, maintenance, cleaning and worn parts replaced.

Required tools

Soft cloth

Cotton swabs

Isopropyl alcohol

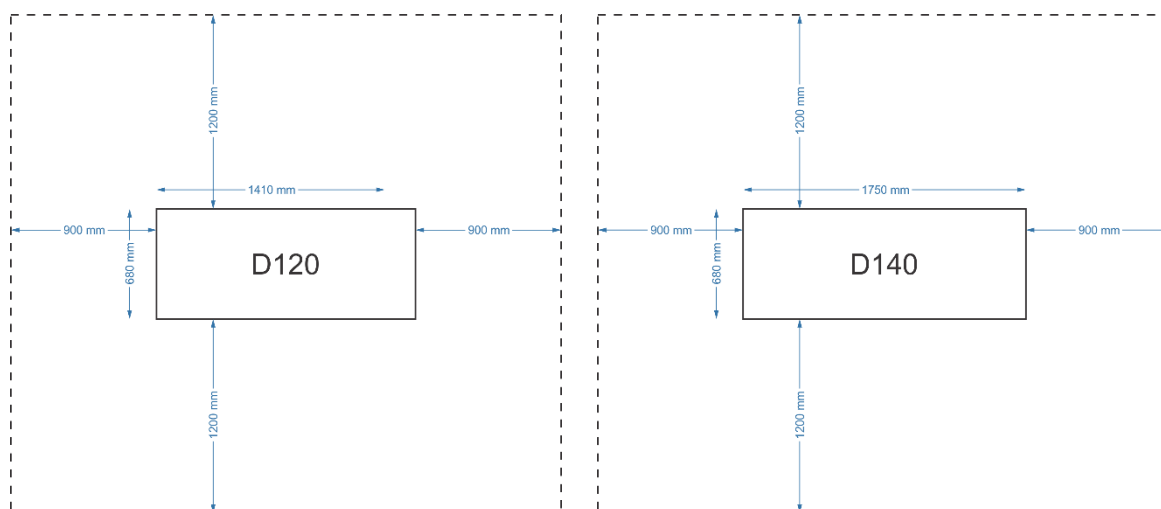
Spanner 13 mm

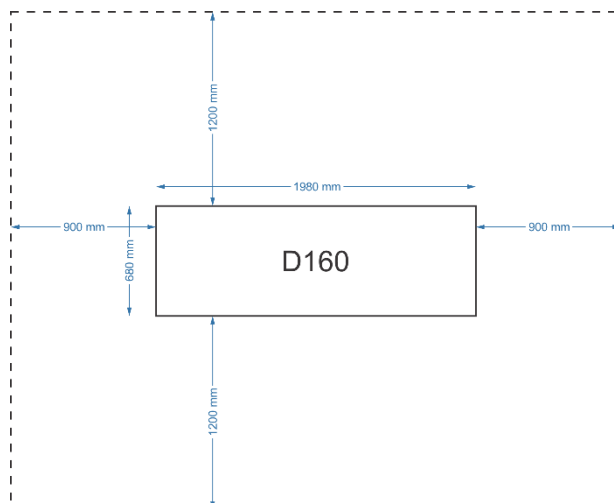
Compressed Air



Position of the cutter

- Put the cutter on a flat, stable and level surface.
- Do not place the cutter in direct sunlight.
- Do not place the cutter close to a heater, air conditioner, humidifier or air blower.
- Make sure the cutter can be accessed from the front and rear:





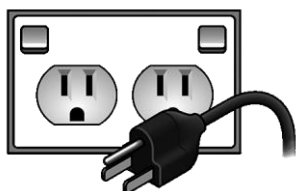
Cabling

Power

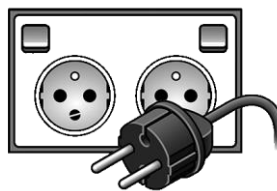
Make sure the power outlet has a proper grounding. The power supply detects the line voltage and switches automatically between 110V and 230V.

The wall sockets, into which the cutter is plugged-in, must be of the grounded type. The grounded conductors, serving the wall socket, must be properly connected to the ground.

US:

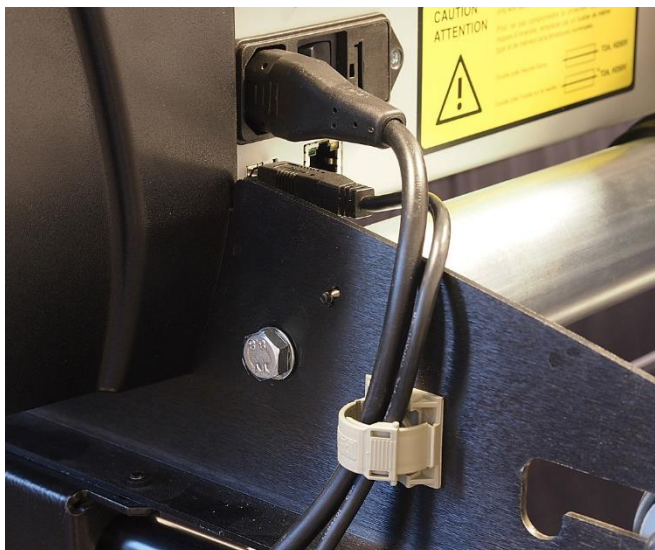


Europe:



USB

Prevent the USB cable to touch the media support roll. Prevent the media to touch the USB cable. This to prevent static electricity discharge over the USB cable causing communication issues.



Make sure the USB cable is maximum 5 meters long. Longer cables will usually lead to communication issues. Do not use extension cables.

Network

Use a shielded CAT6 network cable. Prevent the network cable to touch the media support roll. Prevent the media to touch the network cable. This to prevent static electricity discharge over the network cable causing communication issues.



The network interface has an AUTO MDI/MDIX interface: a cross or straight cable can be used.

Regular maintenance

- **Lift Pinch Rollers:**

When the machine is not used, lift the pinch rollers to prevent dents in the pinch rollers.

- **Drive Drum:**

Clean the drive drum in case it collected dirt or glue to ensure good tracking.

Remove the media from the machine. Switch the machine off. Use some vinyl, remove the backing, put the sticky side on the drive drum, put the pinch roller over the vinyl, lower the pinch rollers, and then pull on the vinyl.

In case the dirt does not come loose, then use a nylon tooth brush and isopropyl alcohol to brush the drive drum.

Use compressed air to remove dirt from the bearings.

- **Pinch Rollers:**

Clean the pinch rollers. Remove the media from the machine. Switch the machine off. Use some vinyl, remove the backing, put the vinyl with the sticky side up on the drive drum, put the pinch roller over the vinyl, lower the pinch rollers, and then pull on the vinyl.

In case the dirt does not come loose, then use a cloth and some isopropyl alcohol to clean the pinch rollers.

- **Knife Holder:**

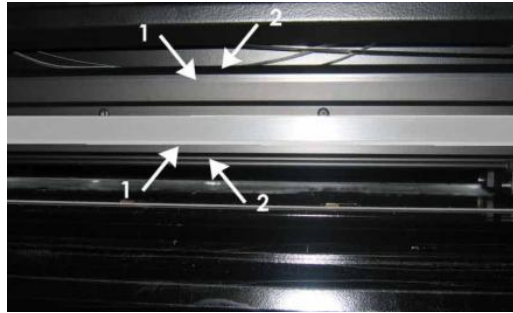
The knife holder may collect glue and dirt, which may cause friction to the media, reducing the cutting quality. Remove the dirt. Eventually use a cloth and some isopropyl alcohol.

- **OPOS Sensor:**

In case the optics of the OPOS sensor collected dust, then this will obstruct the light used to find the registration marks. Clean the optics of the OPOS sensor. Use compressed air to remove dust from the OPOS sensor. Remove vinyl parts with a tweezer.

- **Y Guiding:**

The carriage of the cutter head moves left and right over the Y guiding rail. This Y guiding rail will collect dirt, and may stick to the wheels of the carriage. Clean the Y guiding regularly.



- **Cam Sensor:**

The cam sensor is mounted on carriage of the cutter head and is used to detect the position of the pinch rollers. This sensor can collect dust. Due to this, the sensor may not be able to detect the pinch roller position. Clean the sensor with compressed air. The sensor is accessible from the rear of the machine when it is not at the position of one of the pinch roller blocks.

- **Cutting Knife:**

The knife used to cut the vinyl will not last forever. Depending on the knife settings, the media type, dirt collected on the media, and whether or not FlexCut is used, the knife may become blunt. Replace the knife to get optimal cutting quality.

Keep the knives clean, free of oil and grease. A greasy knife shaft will cause the knife to stick in the media and to drop out of the knife holder.

9TL89-67041	391-231	391-358
Standard Drag 36° Blade	Specialty 60° Blade	Sandblast 55° Blade
		

Required Tool Holder	
9TL89-67033 Standard Black Drag Knife Holder	391-363 Drag Knife Holder Copper
	

Note: blades may be available in 5-packs or single

- **Media Sensor:**

The media sensor is used to check if media is present. In case it collected too much dirt, it may not be possible to detect the media. Remove the dust with compressed air, or use a cotton swab.

- **Vacuum Fan:**


The fan at the bottom of the machine is used to create a vacuum to hold the media flat. Remove the dust from the fan with compressed air. The vacuum is created through the holes in the base plate. Clean the holes with a cotton stick and isopropyl alcohol.

Replace Parts

When parts are worn then this may affect the cutting quality. Those parts need to be replaced.

- **Cutting Strip:**


In case the cutting strip is worn then a groove will appear where the knife cuts the media. These results in the media not being good supported. When cutting, the media may go down due to the pressure used to cut the media. Remove the worn cutting strip by gently pulling on the strip from the left or right end. Remove any remaining glue. Cut the new cutting strip to the correct length. Remove the protection partially, then apply the cutting strip from the left side (slide cutter head to the right side), and continue to the middle of the machine while removing the protection strip. Slide cutter head to the left. Continue applying the cutting strip.

Cutting Strip	1NC40-67032	
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- Pinch Rollers:**

In case the pinch rollers need to be replaced, replace the outer most pinch rollers at the same time. This ensures equal pressure on both pinch rollers.

Lift the pinch rollers. Put some media under the pinch rollers to protect the base plate. Remove the clip from the shaft holding the pinch roller. Slide the shaft from the pinch roller block. Remove the worn pinch roller. Put a new pinch roller in the pinch roller block. Slide the shaft in the pinch roller block. Secure with the clip.

Pinch rollers (set of 2, with 4 clips)	395-401	
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- Media Guides:**

The media guides on the fixed media support roll are used to prevent the media to shift left and right while media is pulled from the roll. In case the rubber ring is worn, then the media guides may shift due to the force of the media. To replace the rubber rings from the media guides, you will need to lose the fixed media roll with a spanner 13 mm from the left side of the machine.

Kit SC Roller Guide and Brake Diameter 30	KIT-1020	
Kit Roller Guiding and Brake Diameter 50	1NC40-67019	

- Brake:**



The brake creates some tension on the media while it is pulled from the roll, this to force the media to run straight in the machine. It also prevents the roll to unroll the

media when the media is shift forward and backward while cutting. The spring may need to be replaced to increase the break tension. To replace the brake, you will need to remove the starlock clip and lose the fixed media roll with a spanner 13 mm.

<p>Kit SC Roller Guide and Brake Diameter 30</p>	<p>KIT-1020</p>	
<p>Roller Guiding and Brake</p>	<p>1NC40-67019</p>	

- Belts:**

The belts drive the cutter head carriage to move the cutter head over the media (Y-axis), or drives the drive drum to move the media forward and backward (X-axis). When a belt is worn, then a shift may appear in the design. To check for a worn belt, set the machine to maximum cutting speed, then start the DIN test. A shift inside the DIN-test indicates a worn belt. To replace the long belt, it is necessary to remove the cutter head from the carriage to access the mounting screws.

<p>Kit SC D60 Belts (X/Y)</p>	<p>KIT-1008</p>	
<p>Kit SC D120 Belts (X/Y)</p>	<p>KIT-1010</p>	
<p>Kit SC D140 Belts (X/Y)</p>	<p>1NC40-67008</p>	
<p>Kit SC D160 Belts (X/Y)</p>	<p>1NC41-67001</p>	

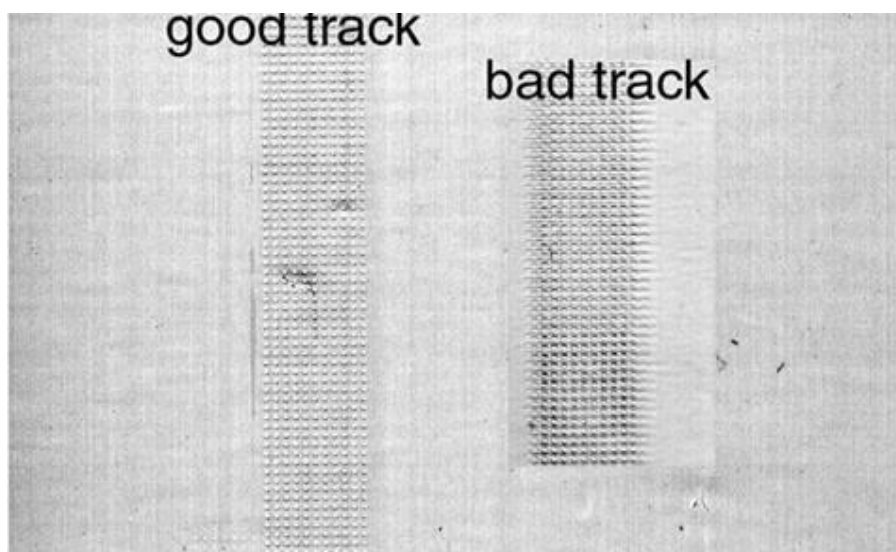
- **Core Holders:**

The core holders fit in the core of the media. When using those core holders, then the media tension between the supply roll and the drive drum is controlled, and prevents the media to come loose from its core.

<p>Core Holders 3 inch (set of 2)</p>	<p>1NC40-67034</p>	
<p>Core Holders 2 inch (set of 2)</p>	<p>400-561</p>	

Tracking issues

Tracking issues can be recognized at the track that the pinch rollers and grid rollers make on the rear side of the media after the cutting job has been done. See below picture of a good track and a bad track.



In case there are tracking problems check next things:

- As media on a roll has been used, “Autoload” has to be activated: click [Settings] – [More] – [General] – [Autoload], select “ON” and confirm.
- The wheels and yellow grit rollers on the drive drum have to be free of dirt and other residue.



Dirty drive drum



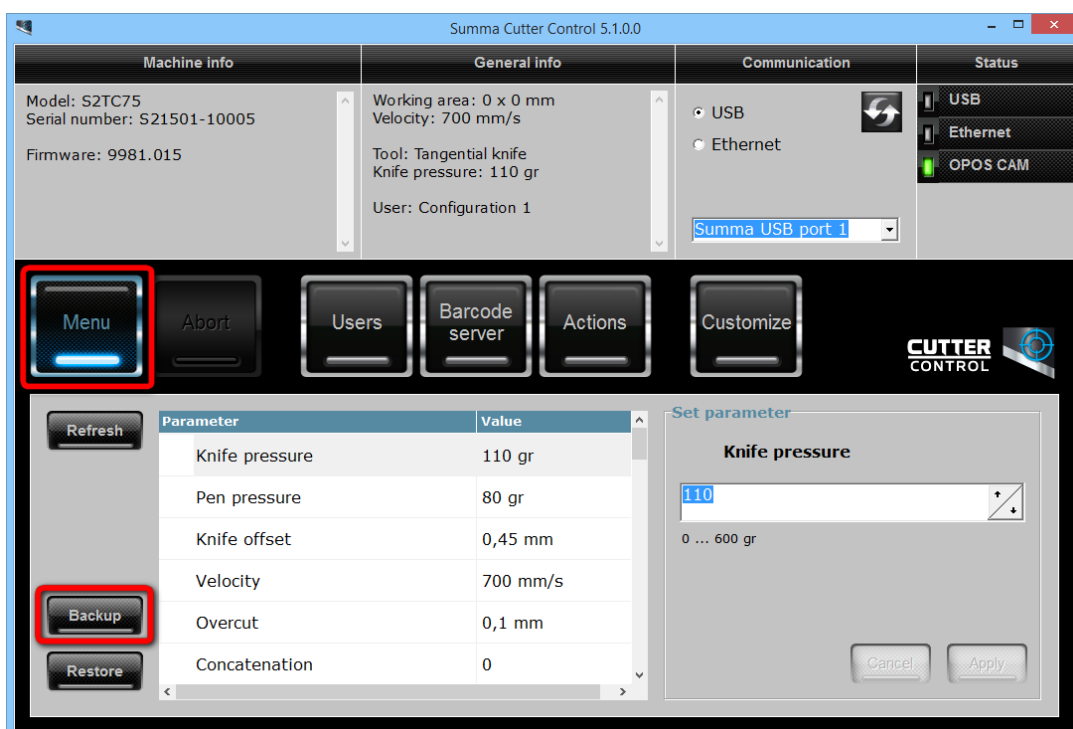
Cleaned drive drum

- The moveable rear media support roll at the back of the machine has to be set parallel with the fixed media support roll.
- The front fixed support media roll (the brake roll) has to brake a bit. So if you turn the roll quickly it should stop after one or two seconds. The rear support media roll has to turn further for a while. Check if the spring on the brake is in good condition.
- The middle pinch roller has to be above a yellow grit roller when set down. The left and the right pinch roller always need to be set above a yellow grit roller on the edge of the media. The outermost pinch rollers are used to feed the media, while the middle pinch rollers are only used to keep the media flat.
- The pinch roller pressure should be equal left and right. Do not use a reduced pinch roller pressure unless very fragile media is used.
- Use the core holders and core holder guides on the media support roll to ensure a good and straight media loading. The core holders have to fit in the media guides both left and right.
- The vacuum fan may not work, or the vacuum holes in the base plate may be clogged.
- Make sure the media was acclimatized.
- **In case an inkjet printer was used, let the media dry and cool down before putting it in the cutter, as it will change dimension while cutting due to cooling and drying.**

- The pinch rollers may be worn. Due to this the hardness of the pinch roller surface changed. Or the black part may have come loose from the metal core. Replace the two outermost pinch rollers (395-401).
- One of the outermost pinch roller blocks may be defective.

Backup

It may be a good option to create a backup of the machine, as this backup contains all parameters of the cutter (except for the network and USB configuration). This backup may come in handy in the future when there is a configuration or hardware issue.



Revised on May 19, 2021