TUFTINGSHOP
LAAN VAN HAAGVLIET 30
2271 XP VOORBURG
NETHERLANDS

Email: info@tuftingshop.com
Phone: +31 6 40194349

CARPET TUFTING GUN MANUAL

AK-I, AK-II, AK HIGH AND AK DUO

Version 1.0

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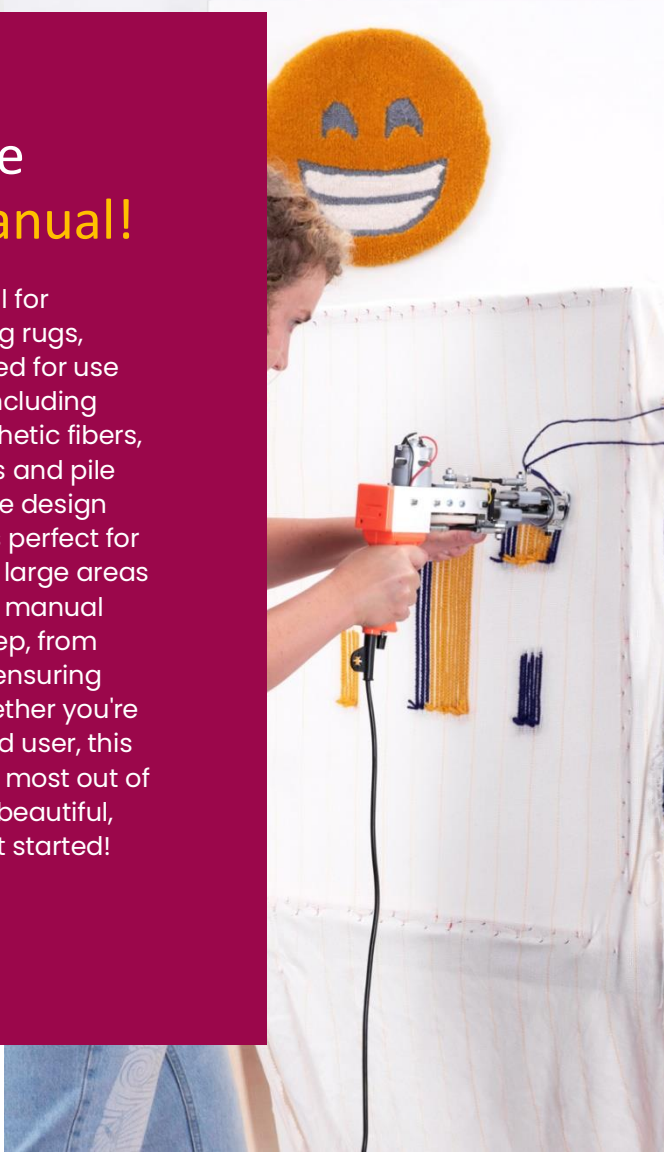
Welcome to the Tufting Gun Manual!

This powerful tool is essential for creating professional-looking rugs, carpets, and textiles. Designed for use with a variety of materials, including wool, cotton, nylon, and synthetic fibers, the tufting gun creates loops and pile quickly and easily. Its intuitive design makes it easy to use, and it's perfect for creating intricate designs or large areas of color. Our comprehensive manual guides you through every step, from setup to material selection, ensuring you get the best results. Whether you're a beginner or an experienced user, this manual will help you get the most out of your tufting gun and create beautiful, high-quality textiles. Let's get started!



HOW TO USE

SAFETY NOTICE

To ensure your safety when using this tufting gun, please carefully read and follow the following safety precautions to avoid accidents such as fire, electric shock, and injury:

- Maintain a clean and dry work area, and avoid using the machine in dark and humid conditions.
- Keep the machine out of reach of children and untrained individuals.
- Prior to operating the machine, ensure that the on-off switch is turned off.
- Before beginning any work with the machine, carefully check that all movable parts are in their correct positions and that the screws of the fixed parts are securely tightened.

By adhering to these safety guidelines, you can help ensure safe and efficient use of the tufting gun, minimizing the risk of accidents and injuries.

PRODUCT PARAMETER TABLE

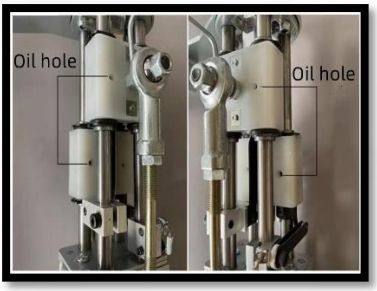
Specification	Cut Pile	Loop Pile	DUO
Input voltage	100V-240V	100V-240V	100V-240V
Output voltage	30V	30V	30V
Power	120W	120W	120W
Frequency	50HZ-60HZ	50HZ-60HZ	50HZ-60HZ
Pile height range	8mm-18mm	6mm-16mm	
Tufting Speed	6-30 stitching/sec	6-30 stitching/sec	
Net Weight	1.5 kg	1.5 kg	1.5 kg

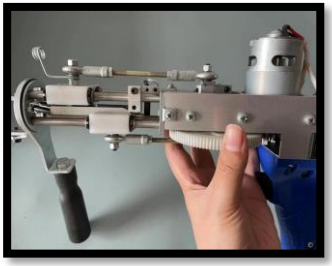
MAINTENANCE

Proper maintenance of a tufting gun is important to ensure that it continues to operate smoothly and effectively over time. Here are some recommended maintenance tasks for a tufting gun:

- Clean the machine regularly: Dust and debris can accumulate in the machine's moving parts, affecting its performance. Regular cleaning with a soft cloth or brush can help keep the machine clean and free of debris.
- Replace worn or damaged parts: Over time, the machine's parts may become worn or damaged, affecting its performance. Check the machine regularly for signs of wear or damage, and replace any parts as needed to keep the machine running smoothly.
- Store the machine properly: When not in use, store the tufting gun in a clean, dry place, and cover it to protect it from dust and debris.
- Oil the machine: Applying a small amount of lubricating oil to the machine's moving parts can help prevent friction and wear, ensuring smoother operation. Consult the manufacturer's instructions for specific recommendations on how to oil your tufting gun. Oil the machine on a regular basis. Each machine has 4 oil holes, and each oil hole drips 3-5 drops of oil. Turn the big gear to make the oil fully lubricate the machine.

By following these maintenance tips, you can help ensure that your tufting gun stays in good condition and continues to produce high-quality tufts for years to come.





CONNECTING THE MACHINE

Insert the power cord into the adapter: Locate the power cord that came with your tufting gun and insert one end into the power adapter. The other end of the power cord should have a plug that connects to your wall outlet.

Turn on the machine: Once the power cord and adapter are properly connected, turn on the machine using the on/off switch or button. Test the machine to make sure it is working properly.

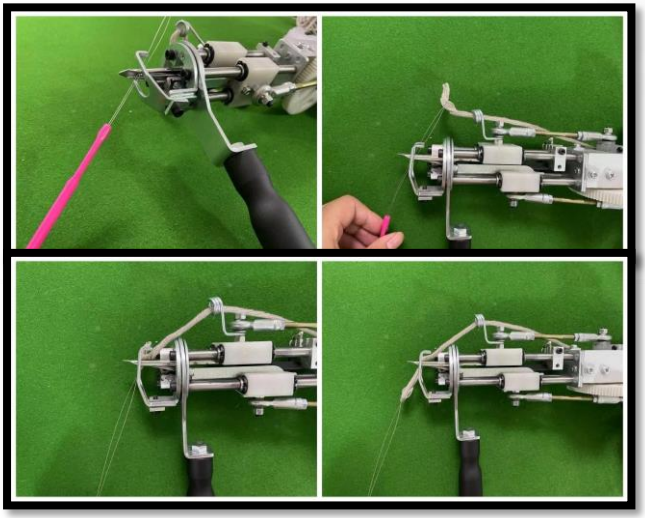
Connect the adapter to the machine: Locate the input port on the tufting gun and insert the adapter plug into the port. Make sure the plug is securely inserted and that there are no loose connections. The power indicator lights up after power-on.

Check whether the power switch is off.
Thread the yarn through the coil.

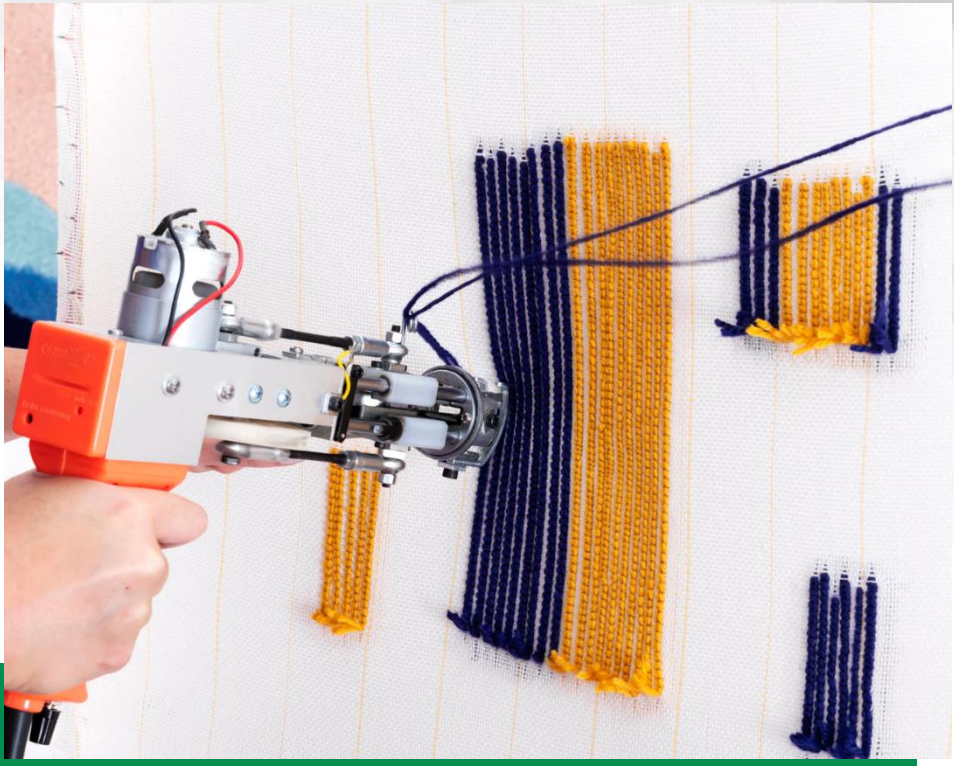
Thread the threader through the needle hole and
use the threader to bring the yarn into the needle.

➔ For the AK HIGH pile, you will find 2 eyes on the needle.
Choose the eye right in front of the foot.

- The front eye is for 30-40 mm
- The other is for 40 - 48 mm



START TUFTING



Push the front part of the needle against the cloth.

Press hard so that the foot touches the cloth. While working, keep pressing so that the foot keeps contact with the cloth.

Now press the start switch.

The machine will now start running when you press the trigger. Keep the balance of the electric tool, and start working from bottom to top and from left to right. If you are well practiced, you might try making circles.

PILE HEIGHT ADJUSTMENT

The pile height of a tufting gun refers to the length of the tufts or loops that are created by the machine. The pile height varies per machine and whether the machine is cut or loop pile. The adjustments consist of various steps, please be sure to consult the whole chapter and before making any changes, ensure the gun is Unplugged.

STEP 1.

PILE HEIGHT ADJUSTMENT FOR THE DUO MACHINE

To adjust the pile height, use the quick switch wheel located on the side of the gun. For pile heights up to 16 millimeters. There are 2 group of Pile height adjustment holes on the wheel. First group have 9, 11, 13, 15 mm five heights, Second group have 8, 10, 12, 14, 16 mm five heights (Figure1); Each hole on the wheel represents a pile height. When a certain height is required, place the screw on the positioning hole to the required hole. The machine's default pile height is set in the first group 13 mm, from the first group. If you need heights in the second group, move the positioning screw to the required height-holes, then:

- Turn the positioning screw on the wheel to the bottom End (Figure 2);
- Loosen the upper eccentric screw (machine parts 20) ;
- Rotate the eccentric wheel (machine parts 20) 180 degrees,
- Tighten the screws again (Figure 3);

After the rotation, the head of the eccentric wheel goes to the front and bottom position screw on the wheel goes to the end (Figure 4).

If you need a 17-18mm pile height firstly adjust the positioning screw on wheel to the number 16,then adjust the tooth on the eccentric

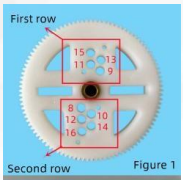


Figure 1

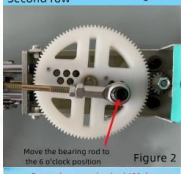


Figure 2

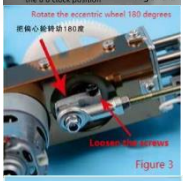


Figure 3

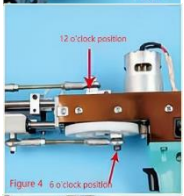


Figure 4

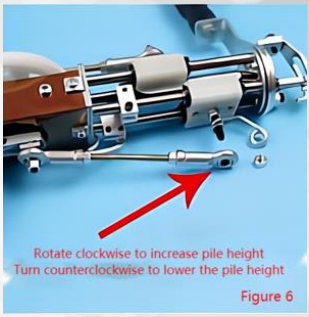
Figure 5

(structure drawing 20) to the slot at the front end (this slot is special for 17-18mm).

STEP 2.

AK-I, AK-II AK HIGH PILE HEIGHT ADJUSTMENTS

Unscrew the screw on the upper bearing rod (machine part 2) and take it off.
Rotating the rod (machine part 15) clockwise, will increase the pile height. Rotating is counterclockwise will reduce the pile height. After adjusting to desired pile height, put the bearing rod back in place and tighten.



STEP 3.

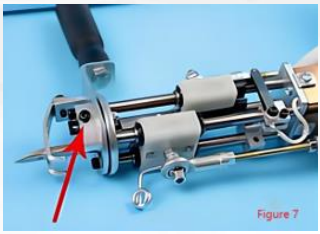
ADJUST THE SCISSORS CLOSER

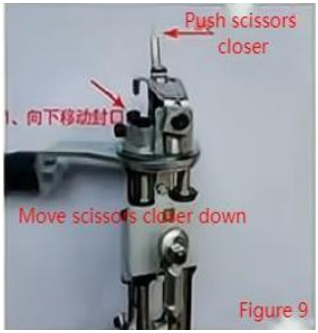
After adjusting the pile height, the scissor closer need to be adjusted (not for the AK-II).

Loosen the screw on the scissor closer (machine part 7).

Turn the plastic wheel (machine part 32) to turn the scissors to the front (Figure 8).

Move the scissors closer down (machine part 5) to close the scissors completely, then tighten the screw (structure picture 7)

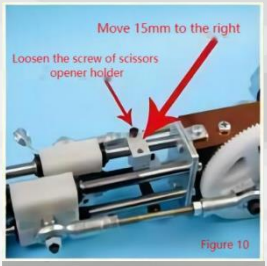




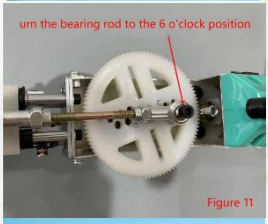
STEP 4.

ADJUSTING THE SCISSOR OPENER

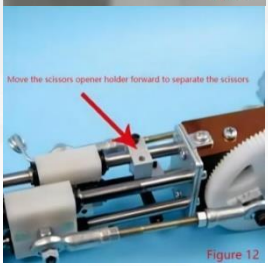
When the pile height is adjusted, the scissors opener also needs to be adjusted.
Loosen the screws (machine part 12) on the scissors opener holder, and move the opener holder back by 15mm (Figure 10);



Rotate the wheel to make the bearing rod return to the back end (Figure 11);



Move the scissors opener holder forward, so that the opener will force the scissors open, then lock the screw on the opener holder (machine part 12), (Figure 12)

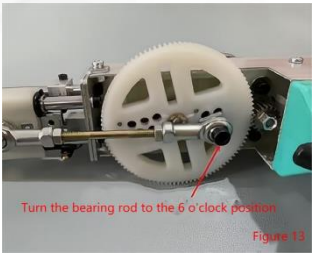


STEP 5.

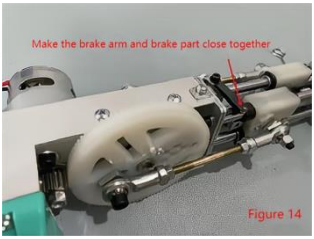
ADJUSTING THE BRAKING SET

The brake positioning needs to be adjusted sometimes when the pile height is adjusted:

Turn the bearing rod to the back end. (Figure 13);



Make the stopper protrusions (machine part 28) overlap the black brake pads so that the two contact points on the brake pads touch each other (Figure14). When the yarn height increases, it moves backward, and when the yarn height decreases, it moves forward;



BACKING LINE AND FRONT PILE PARAMETER LIST

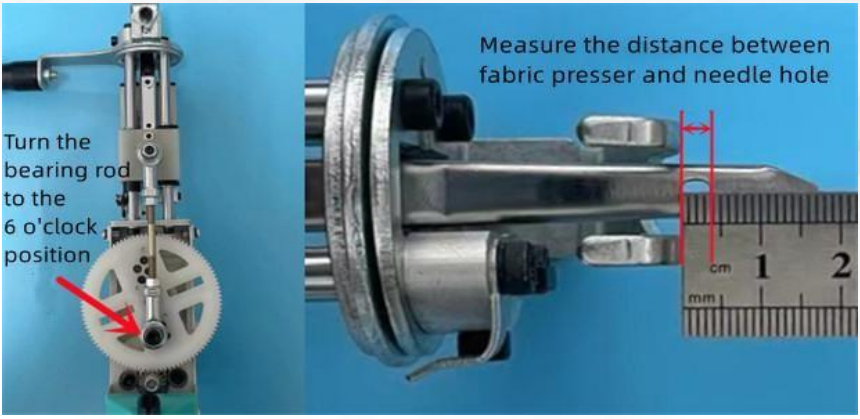
First Group positioning holee	Distance between scissor mouth & needle hole	Distance between Protect bow & needle hole	Distance between Spot strip & scissors blade
9mm	17-18mm	3-4mm	10-11mm
11mm	18-19mm	3-4mm	12-13mm
13mm	20-21mm	3-4mm	14-15mm
15mm	22-23mm	3-4mm	19-20mm

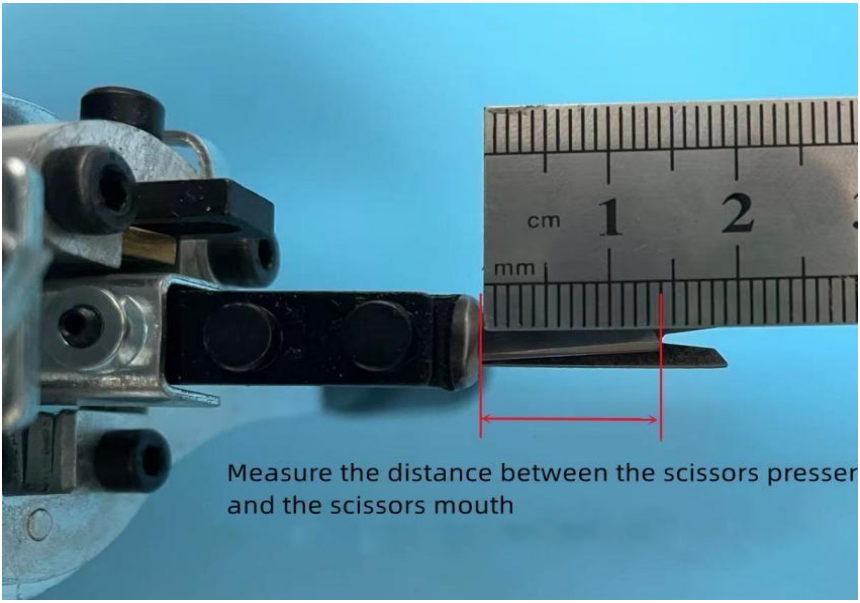
Second Group positioning holee	Distance between scissor mouth & needle hole	Distance between Protect bow & needle hole	Distance between Spot strip & scissors blade
8mm	16-17mm	3-4mm	9-10mm
10mm	17-18mm	3-4mm	11-12mm
12mm	19-20mm	3-4mm	12-14mm
14mm	21-22mm	3-4mm	15-17mm
16mm	25-26mm	3-4mm	20-21mm

STEP 6.

ADJUSTING THE FOOT

Always make sure the needle hole is right in front of the foot.





FROM CUT TO LOOP

In tufting, cut and loop refer to the way the yarn is treated after it is inserted into the backing material. Cut pile and loop pile are the two main types of carpet styles produced through tufting, and they differ in their appearance, texture, and durability.

Cut pile carpets are made by cutting the yarn loops created during tufting, resulting in individual yarn strands standing straight up from the backing. This creates a plush, soft surface.

Loop pile carpets, on the other hand, leave the yarn loops intact, resulting in a surface of continuous loops. This creates a more textured surface that is often more durable and better suited to high-traffic areas.

In summary, the main difference between cut and loop pile in tufting is that cut pile has individual strands of yarn standing upright while loop pile has continuous loops of yarn. Cut pile carpets tend to be softer and more formal-looking while loop pile carpets tend to be more textured and durable.

There are ***2 ways*** to change the machine from cut to loop. The first option is the easy option and the most advised one.

OPTION 1.

BOTH DUO AND AK-I and AK-HIGH

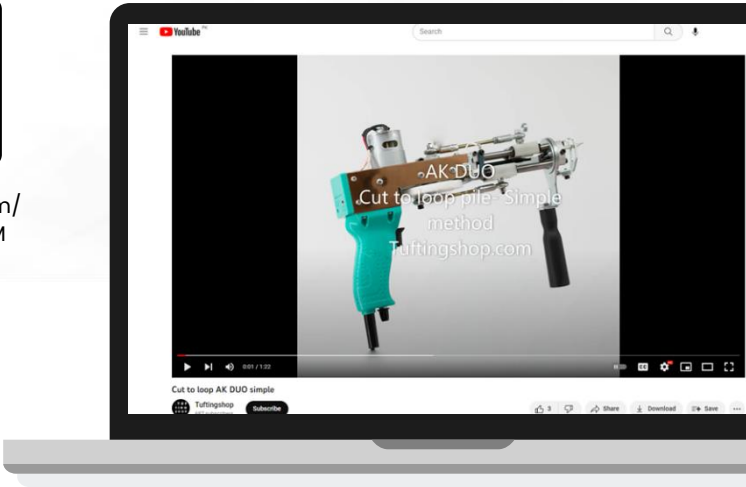
This is the simplest method to changing you machine from cut to loop. You deactivate the scissors by moving the part that makes the scissors cut. The scissors stay open this way and the machine will create a loop effect.

First you loosen this screw.

Next you lift the black Iron Block to the top and then fix the screw.

For further details, please check the video.

https://www.youtube.com/watch?v=G3WmA6SLKpM



OPTION 2.

ONLY FOR THE DUO

This is a more complex way of changing between functions in which the scissor inside the machine is replace with the loop head.

STEP 1: MOVE PARTS ASIDE TO MAKE THE SCISSOR ACCESIBE

Take off the upper screw. And remove the bearing rod from the screw.

Push the slider to the front.

Unscrew the scissors opener and flip the scissors opener to the outside to expose the screw that holds the scissor. Turn the gear and push the connecting rod to the front side. Use a screwdriver to unscrew the scissors. The scissors can be easily removed from the side with pliers.

STEP 2: REMOVE THE SCISSOR AND REPLACE IT WITH THE LOOP HEAD

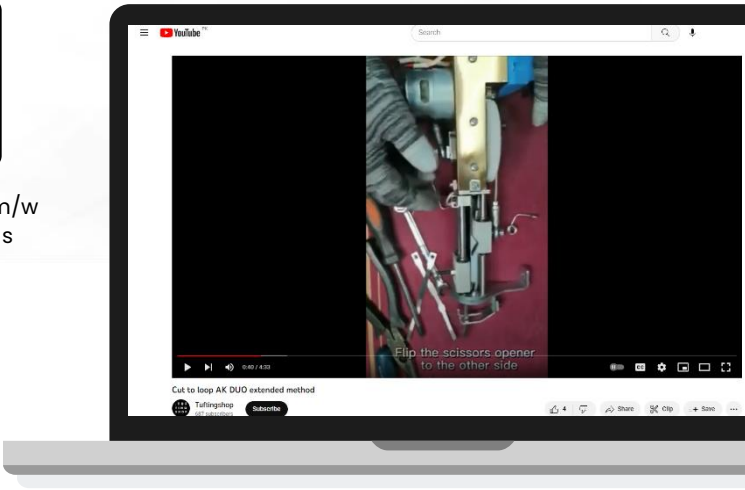
After removing the scissors, you can install the Loop Head that came in the box using the same screw. The scissor opener does not work in Loop pile made, move it to the back of the rod and fix it there. Reinstall the bearing rod. Note that the yarn feeding circle and the gasket above go under the bearing rod. Make sure the yarn feeder is in the direction of the needle hole.

For however Loop pile obtained at this time is about 10 millimeters (0.39 inch). If you use 9 millimeters Loop head, Loop half height is 12 millimeters (0.47 inch).

Finally, check the position of a loop head in the needle. Make sure the loop head is in the middle of the needle and doesn't scratch the needle when moving back and forth.

For further details, please check the video.

https://www.youtube.com/watch?v=llk4kXvzcfU&t=40s

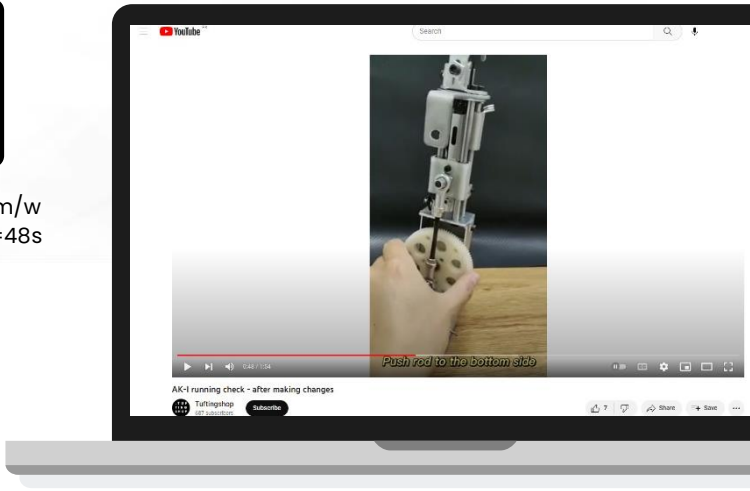


RUNNING CHECK

If you change the scissor or function, please do this ***running check before you start***.

For further details, please check the video.

https://www.youtube.com/watch?v=9Z84OCC7-vI&t=48s



TROUBLE

THE SCISSORS ARE NOT CUTTING

There are several potential reasons why the scissors of a tufting gun may not be cutting the yarn:

- **Dull blades:** If the blades of the tufting gun are dull, they may not be sharp enough to cut through the yarn. This can happen over time with frequent use, or if the blades are not properly maintained. It is normal for them to wear overtime. Replace the scissor or sharpen the blades.
- **Yarn thickness:** If the yarn being used is too thick or dense, the blades may not be able to cut through it. In this case, using a thinner yarn may be necessary.
- **Tension settings:** If the tension settings on the tufting gun are too low, the yarn may not be held tightly enough for the blades to cut through it. Adjusting the tension settings may help resolve the issue.
- **Improper technique:** If the user is not using the tufting gun properly, it may be difficult for the blades to cut through the yarn. For example, if the user is not applying enough pressure or is moving the gun too quickly, the blades may not have enough time to cut through the yarn.
- **Maintenance issues:** If the tufting gun is not properly maintained, such as if it has become clogged with yarn fibers, this can prevent the blades from cutting through the yarn. Regular cleaning and maintenance of the tufting gun can help prevent this issue.

THE MACHINE IS NOT GETTING POWER

There are several possible reasons why a tufting gun may not power on:

- Improperly connected or adaptor not working. Please check all the wires and connections and see if the light on the adapter is on.
- **Loose connections:** If the tufting gun has loose connections or if the power cord is damaged, this can prevent it from turning on. Check the connections and the power cord to make sure everything is secure and undamaged.
- **Malfunctioning switch:** If the switch on the tufting gun is malfunctioning, it may prevent it from turning on. Try toggling the switch a few times to see if this is the issue.

If the problem persists, it may be necessary to seek assistance from our customer service where we are happy to help you solve the issue.

THE MACHINE IS BEEPING

If you hear a high-pitched beeping noise from your tufting gun, it's likely that your rug machine requires lubrication. Apply a few drops of lubricating oil to the moving parts of the machine, then turn it on to check if it's functioning properly. To keep your tufting gun in good condition, it's recommended that you lubricate it at least once a week.

However, if your rug gun emits a high-pitched sound and then stops, it's an indication that the motor lacks sufficient power to push through the fabric. This is commonly caused by tufting over existing tufted lines or using rigid and thick yarns. Also it could be a signal that yarn is stuck in the wheel. Unplug the machine and check.

THE BACK STITCH IS UNEVEN OR INCONSISTENT

There are several reasons why the stitch of a tufting gun may be uneven:

- Uneven pile height: If the pile height of the yarn being used is not consistent, this can result in an uneven stitch. Make sure the yarn being used has a consistent pile height.
- Uneven yarn tension: If the tension of the yarn being fed into the tufting gun is not consistent, this can cause an uneven stitch. Make sure the tension is adjusted properly and that the yarn is being fed through the gun smoothly.
- Uneven speed or pressure: If the tufting gun is being moved too quickly or too slowly, or if too much or too little pressure is being applied, this can result in an uneven stitch. Try adjusting the speed and pressure to achieve a more consistent stitch.
- Clogged or damaged needles: If the needles of the tufting gun are clogged or damaged, this can cause an uneven stitch. Check the needles to make sure they are clean and undamaged.
- Uneven backing material: If the backing material being used is stretched properly and therefore not flat or consistent, this can cause an uneven stitch. Make sure the backing material is smooth and consistent.
- The pusher is too close to the foot if the machine shows loops on the back of the cloth. Try to move it forward a millimeter or 2 to see if the stitch is more tight.

THE MACHINE IS MAKING HOLES IN THE CLOTH

In the case where your tufting gun is making holes in the cloth, there could be a few reasons why. Firstly, it's possible that the cloth is not stretched enough and needs to be taut like a drum. Additionally, the position of the foot may be incorrect, and it should be right below the needle hole (almost touching the bottom of the needle hole) when the needle is in the highest position.

THE YARN IS NOT STICKING IN THE CLOTH

If your yarn won't stay in the cloth, it's likely due to one of two reasons. Either your yarn is too thin, and you need to use thicker yarn or double up on the yarn, or the needle doesn't reach far enough because the position of the foot is incorrect, and it should be right below the needle hole (almost touching the bottom of the needle hole) when the needle is in the highest position.

MATERIAL

CLOTH

Some popular choices include:

Monk's Cloth: This is a heavy cotton fabric that has a loose weave and is often used for embroidery and other needlework. It is a popular choice for tufting because it holds the tufts securely and has a soft, textured finish.

Burlap: Burlap is a coarse, plain-woven fabric that is made from jute or hemp fibers. It is often used in gardening and landscaping, but it can also be used for tufting because of its strength and durability.

Tufting cloth: tufting cloth is cloth that is specifically made for that; TUFTING. It has a comparable weave like monks cloth, but is more resilient to tearing and more durable. It is often made from polyester, or a polyester cotton mesh.

Ultimately, the best fabric for tufting with a tufting gun will depend on your project goals and personal preferences. It's always a good idea to experiment with different fabrics and yarns to find the best combination for your particular project.

YARN

A tufting gun can work with a wide range of yarns, but the most commonly used ones are those that are strong, durable, and have a consistent texture. Wool and wool blends are popular choices for tufting as they are soft, resilient, and have a natural crimp that helps the yarn hold its shape. Cotton is another popular choice due to its strength and versatility. Synthetic fibers like nylon or polyester can also be used with tufting guns, and they often offer a wider range of colors and textures than natural fibers.

It's important to note that the thickness and weight of the yarn can affect how well it works with a tufting gun. Heavy yarns can be more difficult to tuft, while lighter yarns may not be strong enough to hold the tufts in place. Generally, a medium weight yarn with a tight weave is a good choice for tufting with a tufting gun

SECONDARY BACKING AND GLUE

Finishing the back of a tufted rug is an important step to ensure that the rug is durable and long-lasting. Here are some general steps for finishing the back of a tufted rug:

Apply a latex backing: Apply a latex backing to the back of the rug, using a paintbrush, spatula or roller to spread the backing evenly over the entire surface.

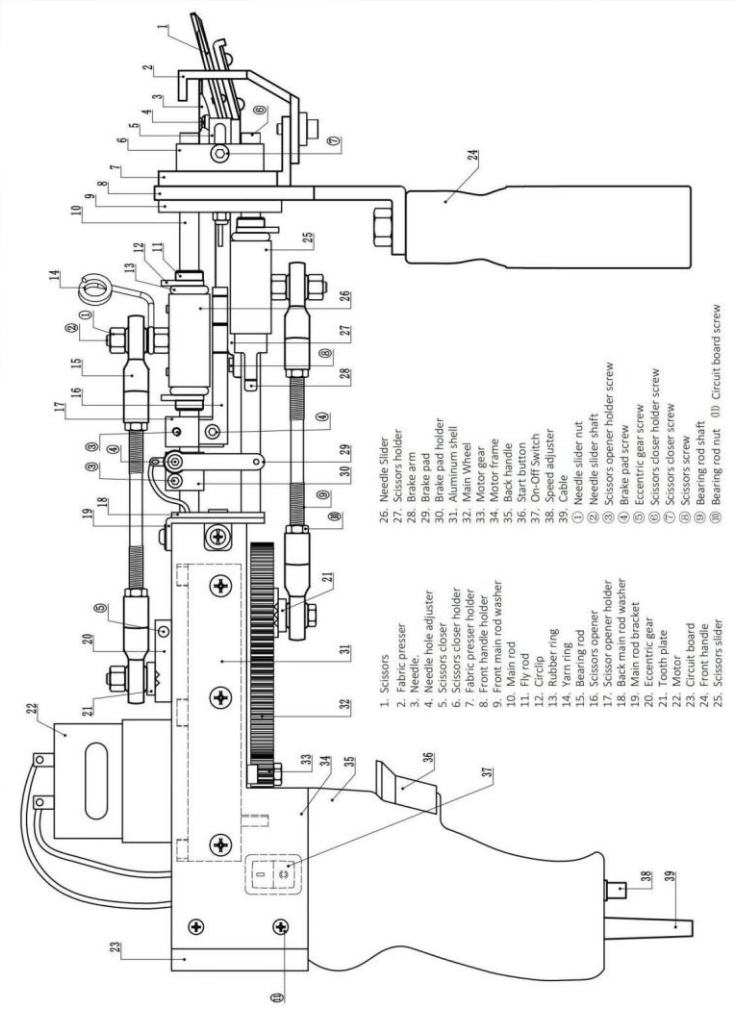
Let the backing dry: Allow the backing to dry completely according to the manufacturer's instructions. This may take several hours or overnight.

Cut the piece of your frame, after the glue has dried. Leave about 1-2 inches of fabric beyond the last row of tufting. This access fabric can be folded inwards, which prevents the cloth from frilling.

Apply a fabric backing (optional): If desired, you can also apply a fabric backing to the latex backing for additional strength and durability. To do this, apply fabric glue to the back of the rug, and press a piece of fabric onto the glue, smoothing out any wrinkles or bubbles. Allow the glue to dry completely.

As for the type of glue to use, fabric glue is often recommended for attaching a fabric backing to the latex backing. However, be sure to use a high-quality fabric glue that is suitable for use with the materials you are working with, and follow the manufacturer's instructions carefully.

MACHINE MARTS AND



Address:

TUFTINGSHOP
LAAN VAN HAAGVLIET 30
2271 XP VOORBURG
NETHERLANDS

Contact:

Email: info@tuftingshop.com
Phone: +31 6 40194349