Manual Thermocut

Dear customer!

Please read the enclosed safety and operating instructions before you use the PROXXON THERMOCUT the first time in order to ensure safe and proper handling.

Overall view (Fig. 1):

1. On/Off switch
2. Temperature adjustment knob
3. Standby LED
4. Knurled screw for clamping the cutting wire
5. Overarm
6. Wire spool
7. Screw for wire spool
8. Spool carrier
9. Screw for spool carrier
10. Guide slot
11. Cutting Wire
12. Lower wire guide
13. Slot for angle stop
14. Angle gauge
15. Extension

Description of the device

With the PROXXON THERMOCUT you can cut polystyrene in a clean and safe way. The standard equipment includes a spool with cutting wire (ø 0.2 mm, length 30 m) and an adjustable angle stop with an extension.

Technical data

Voltage: Primary 115 Volt, 60Hz
Secondary max. 10.5 Volt, 60Hz
Power rating: max. 20 watt
Secondary current: max. 1.0 A
Dimensions of work surface: 370 x 260 mm
Max. cutting height: 5 1/2” (140 mm)
Throat: 13 3/4” (350 mm)
Weight: 6.6 lb (2.9 kg)

Operation

Installing the cutting wire
1. Switch off the device.
2. Carefully unwind the cutting wire approx. 8” (20 cm).
3. Open the lower wire guide by turning the knurled screw 4 (Fig. 1).
4. Thread the wire approx. 2” (5 cm) into the lower wire guide.
5. Clamp the wire by turning the knurled screw 4.
6. Push the overarm 5 lightly downwards with your left hand, thread the wire through the guide slot 10 and fasten the wire spool 6 so that the wire is slightly tensioned.
7. Release the arm. The wire is tensioned by the spring force of the arm.
8. Check that the wire is a right angle with work surface. Adjust, if necessary by sliding the spool carrier 8 or by bending the clamp.
9. Connect the mains plug. Your device is now ready for use.

Cutting
10. Switch on the device with the switch 1 (Fig. 1).

Additional safety instructions

1. Provide good ventilation, when using the device.
2. Observe the material suppliers safety instructions when cutting.
3. The cutting wire is hot. Risk of skin burn!
4. Do not use the device near curtains or other combustible materials.
5. Do not leave the device unattended when it is switched on.
6. Only use the supplied cutting wire or original PROXXON replacement wire, otherwise the transformer can become overloaded.
7. Switch off the device after use.

Assembling the THERMOCUT

Fit the overarm 1 (Fig. 2) underneath the device by using the enclosed knurled screw. Fasten the cable 2 to the overarm with the screw 3. Tighten the screw well to ensure good electrical contact (10.5 volt low voltage). Slide the spool carrier 8 (Fig. 1) on to the arm and fasten it with the screw 9.
**Note:**

*It is normal that the wire extends somewhat after being heated for the first time. Stretch the wire slightly by the first heating and tension it again. The wire will now retain its length.*

11. Adjust the temperature with the regulator 2.
   The table on the front of the device serves as a guide. The best way to find the ideal temperature is to try different temperatures yourself. For simple, straightforward cuts you use a high temperature, for complicated shapes a lower temperature. Please note that too high temperatures will cause untidy edges.

12. Now move the workpiece through the wire with a light pressure and even speed. Be aware that too high pressure in the direction of the cut when cutting complicated shapes will tend to bend the wire.

**Miter cutting**

Miter cutting can be done in two ways with the THERMOCUT: by adjusting the spool carrier on the overarm or with the adjustable angle gauge.

**Adjusting the spool carrier:** loosen the screws 1 and 2 (Fig. 3) and select the required angle by sliding the spool carrier. Tighten the screw 1 again and tension the wire as usual.

**Note:**

*Adjusting the spool carrier will lengthen the heated part of the wire and thus increase the electrical resistance. The temperature must be adjusted accordingly.*

**Working with the stop:** Select the required miter on the angle stop and secure the adjustment with the screw 1 (Fig. 4). Move the extension 2 so that you can pass the cutting wire without difficulty. Press the workpiece against the stop and guide the stop along the slot 3.

**Note:** The stop can be fixed for parallel cutting. Turn the screw 1 (Fig. 5) to clamp the stop in the slot. Guide the workpiece past the cutting wire along the stop.

**Important hints:**

– When cutting double miter (e.g. roof), don’t remove the cut off part after the first cutting. Use it as an underlay for the second cut.
– The wire has a higher temperature at the exit side of the workpiece, which may cause surface melting. To prevent this, the wire can be cooled by blowing on it.
– Small sections of long profiles can best be cut by laying a waste piece 1 (Fig. 6) between the stop and the work piece and then cutting against the stop. The cutting wire then cuts into the waste piece and the edges remain clean.
– You can make a simple device yourself for cutting circular segments. Fix a drawing-pin at the center of the required circle on the working table with a piece of tape. Fix the workpiece onto the pin and turn the workpiece around the pin (Fig. 7).
– The cutting wire normally breaks above the guide bushing. Insert the wire a few inches further in the lower wire guide and fasten it again at regular intervals to prevent the wire from breaking.

**Cleaning the device**

Clean the wire and the bushing regularly to prevent unnecessary evaporation of polystyrene residue. Caution: First switch off the device!