

KITES FOR CONNOISSEURS

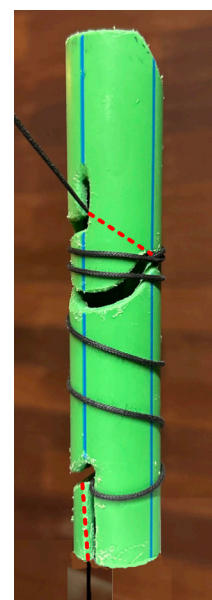
HOLP

ANDREAS ÅGREN
andreas@windman.se



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Kites for Connoisseurs is a collection of plans for kites designed by Andreas Ågren. These kites often have a unique technical twist. The plans can be found at <http://windman.se/kite-plans> and they may not be used for commercial purpose without written consent.



HOLP – **H**old the **L**ine, **P**lease.

HOLP is a gadget to allow bystanders to fly your kite without you risking to lose it. It gives the user the full feeling of flying the kite while you safely just stand by, holding the reel/spool with a loose line.

HOLP can be made of different materials, such as Delrin/POM tube, PVC pressure tube of 16-PN or 20-PN, or aluminium tube, and with different diameter of the tube: 20 mm for smaller hands and 25 mm for bigger hands.

POM tube is easier to work with to get a better finish, but it is 15 times more expensive than PVC pressure tube: 50 cm of POM Ø 25mm (which gives three HOLPs) costs 7.5 Euro compared to PVC Pressure tube 16-PN which costs 0.5 EURO for same length (Indonesian prices).

HOLP can be made using regular tools as a drill and a Dremel type tool with mill bits.

PVC pressure tube has a relatively low melting point compared to POM and the surface is more difficult to polish to a nice finish.

HOLP principle.

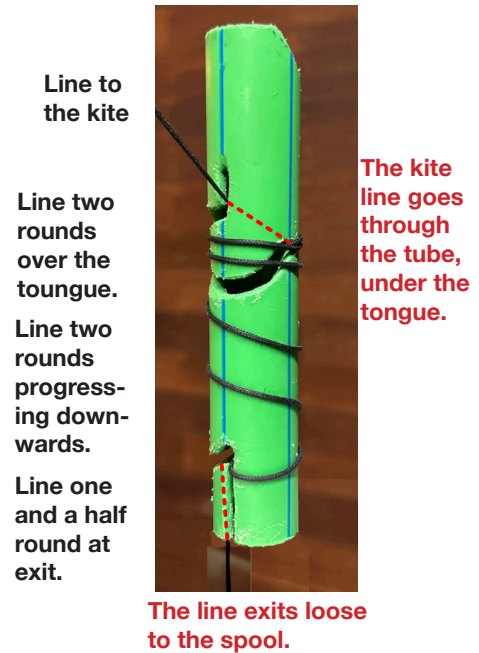
The HOLP is a handle that gives a firm grip on the line to the kite by the line being wrapped at least five rounds around a tube. The direct pull of the kite line on the line spool/reel is thus released.

A 2D template for the cut-out pattern is included in this description.

Material.

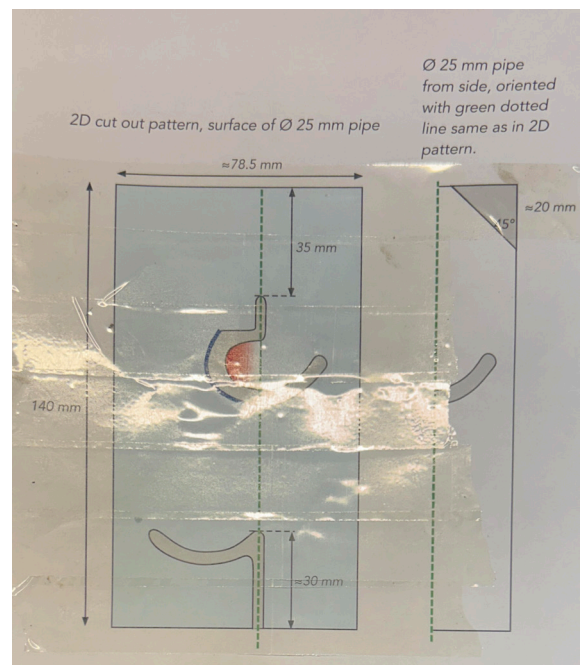
The material is a tube that can be of different diameter: 20 mm for smaller hands and 25 mm for bigger hands.

- Delrin/POM tube
- PVC pressure tube of 16-PN or 20-PN
- Aluminium tube



How to make a HOLP.

1. Cut a 14 cm long piece of the chosen tube material.
2. Print out the template and tape adhesive tape over the template part ($\varnothing$ 25 mm or $\varnothing$ 20 mm) to reinforce the paper.



3. Cut out the template with a 10 mm overlapping on one side (along the line indicating the size of the HOLP)
4. Cut out the greyed slings in the template.

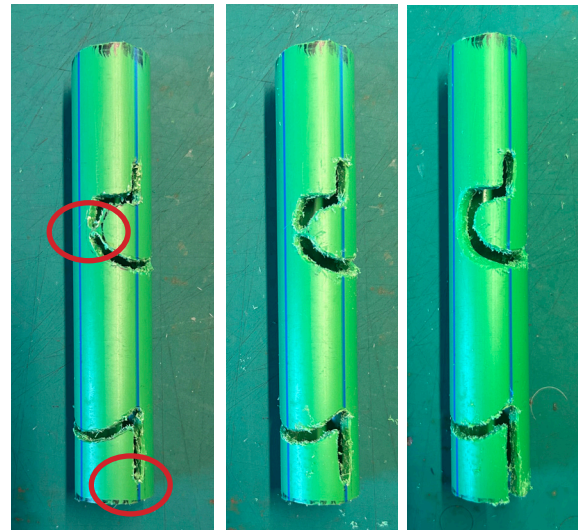


5. Wrap the template tight around the tube and fixate it with adhesive tape.
6. With a suitable pen draw the inside contours of the slings on the tube.
7. Cut out the marked slings in the tube. Suggested MO:
 - a. Make marks for a 1 mm drill with a soldering iron (if using PVC or POM) with a few mm between marks.
 - b. Drill the 1 mm holes.



- c. Mill out the slings.
Leave a “bridge” at both the upper “tongue” and the lower exit to prevent the material from flexing when milling.
- d. Complete the milling according to the contour.

- e. Remove the bridges.



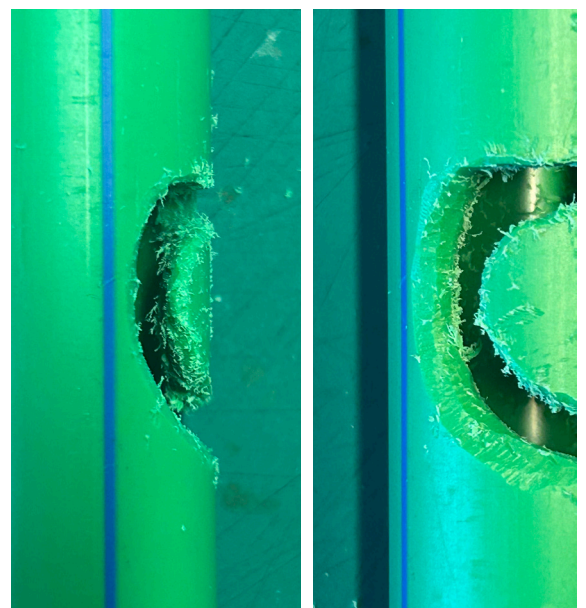
Initial drill and mill with bridges.

Completed milling following contours.

Bridges removed.

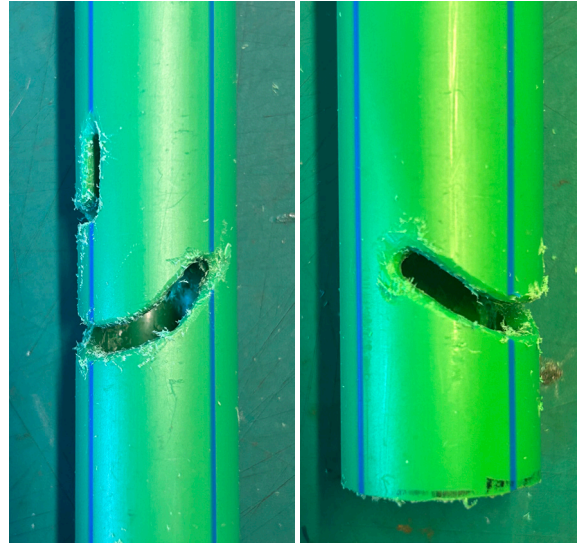
- f. Thin out/taper on the inside the tip of the “tongue” (marked in red on the template) to let the line slide more easily under it.

- g. Bevel the blue marked part of the slot, also to let the line slide more easily under the “tongue”.

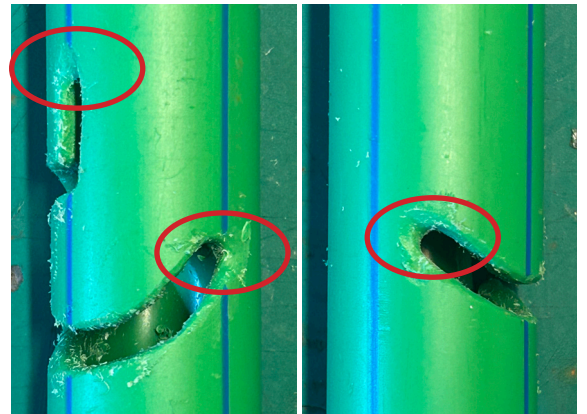


Inside of “tongue” tapered. Outer edge bevelled.

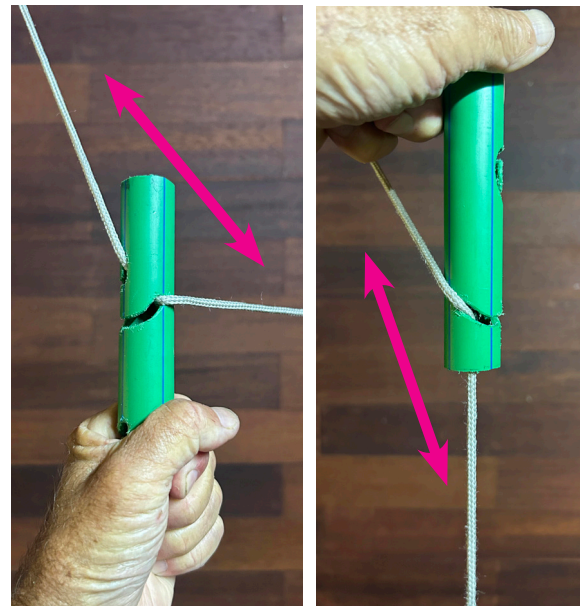
- h. Smooth out the edges of the slots, both on inside and on outside.



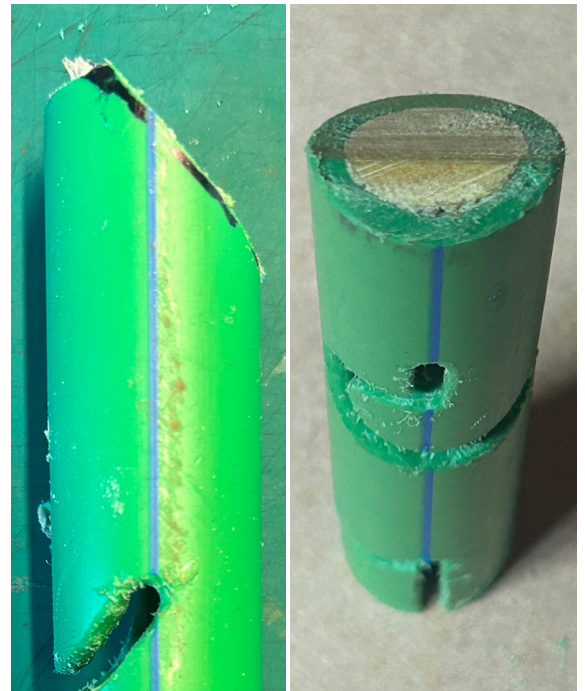
- i. Bevel the endings of the cut-outs where the line will enter and exit the tube.



8. To ascertain that the cut-out edges where the line will be crossing the tube material are smooth both on outside and on inside of the tube: grind them by pulling the HOLP with a line that is as coarse as possible inside up and down a couple of times under stretch.



9. Find a dowel with the same diameter as the inner diameter of the tube and cut a 3 cm long piece of it.
10. Glue the dowel piece inside the top of the tube.
11. Saw the top of the tube off in a 45° angle, so the 45° is in right angle to line entrance of the tube; see green dotted line in template.



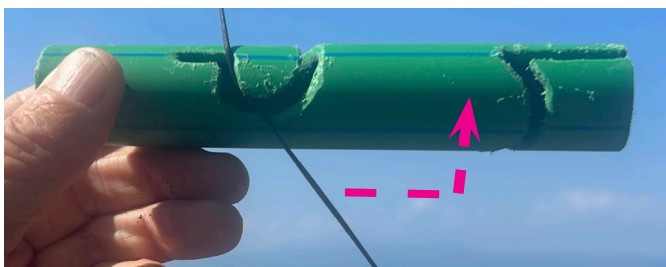
How to load the HOLP.



1. Put HOLP horizontally behind the kite line with the kite line in the top cut-out.



2. Press the HOLP towards the kite line.



3. Pull line spool slightly to the right and then upwards to let the "tongue" of the HOLP catch the line.



4. After the "tongue" has caught the kite line, the line exits the cut-out in the opposite direction.



5. Wrap the line two rounds over the "tongue".



6. Then wrap the line two rounds progressing to the right over the tube.



7. Slip the line into the second cut-out slot and wrap the line one and a half round inside the second cut out sling.



8. First wrap in second cut-out exits on the other side of the tube.



9. Pull the line down through the exit slot. The kite line is now secured in the HOLP and the line from the HOLP to the line spool is loose and without tension.

Hand over the HOLP to the bystander, showing where to place the thumb.



10. Thumb on top, index finger above or under the kite line, whatever feels more comfortable.

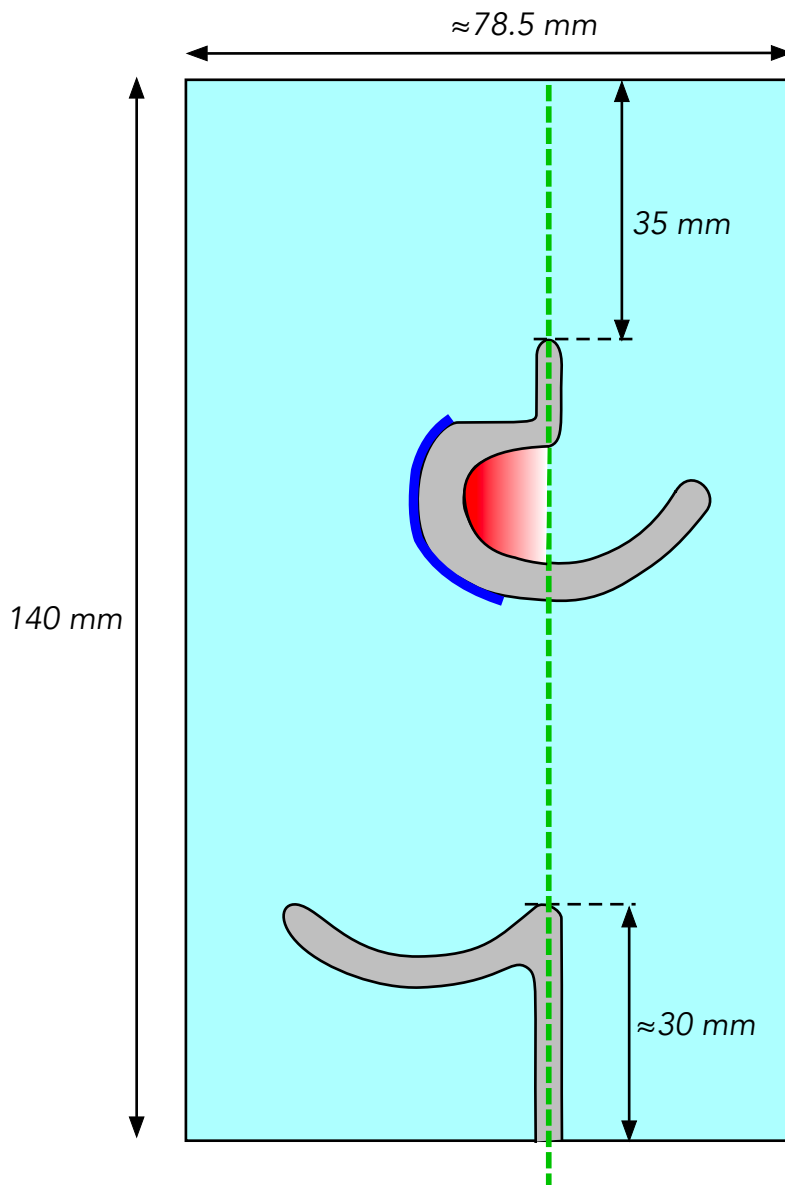
HOLP - HOld the Line, Please

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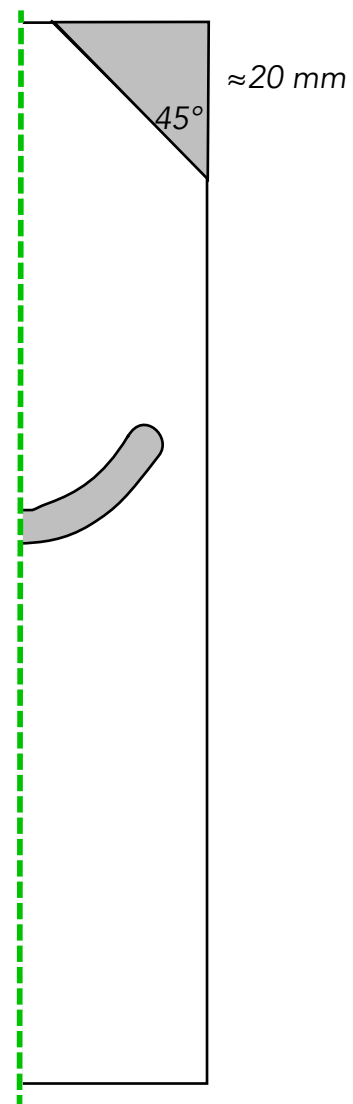


Template for Ø25 mm tube.

2D cut out pattern, surface of Ø 25 mm pipe

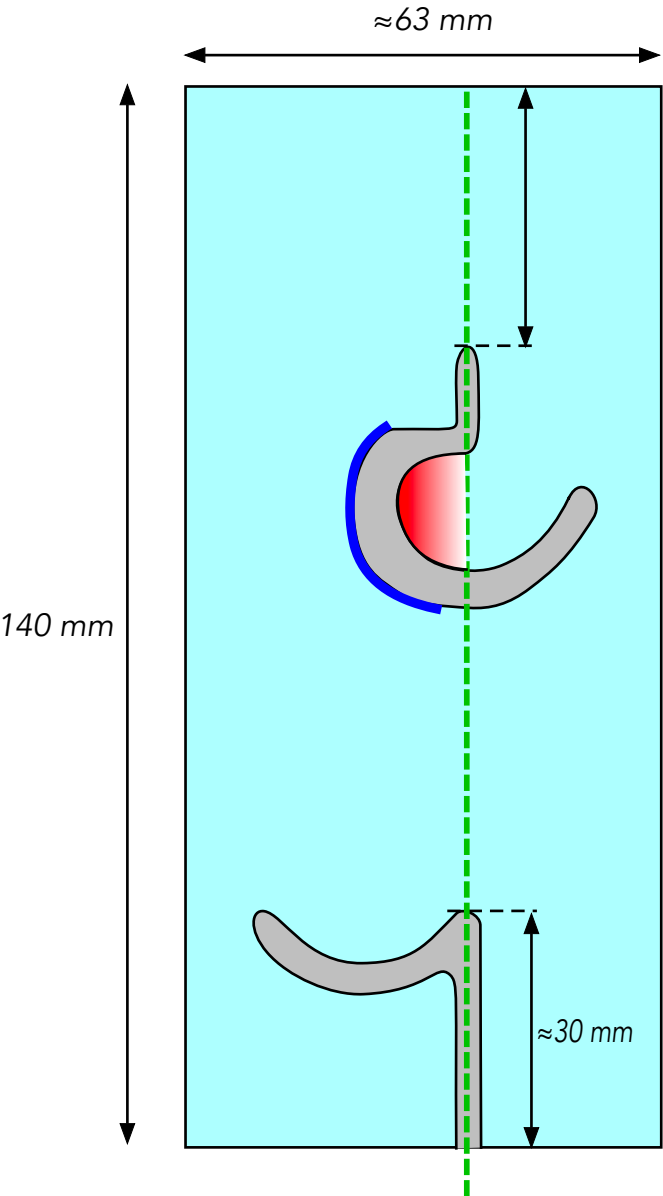


Ø 25 mm pipe
from side, oriented
with green dotted
line same as in 2D
pattern.



Template for Ø20 mm tube.

2D cut out pattern, surface of Ø 20 mm pipe



Ø 20 mm pipe
from side, oriented
with green dotted
line same as in 2D
pattern.

