

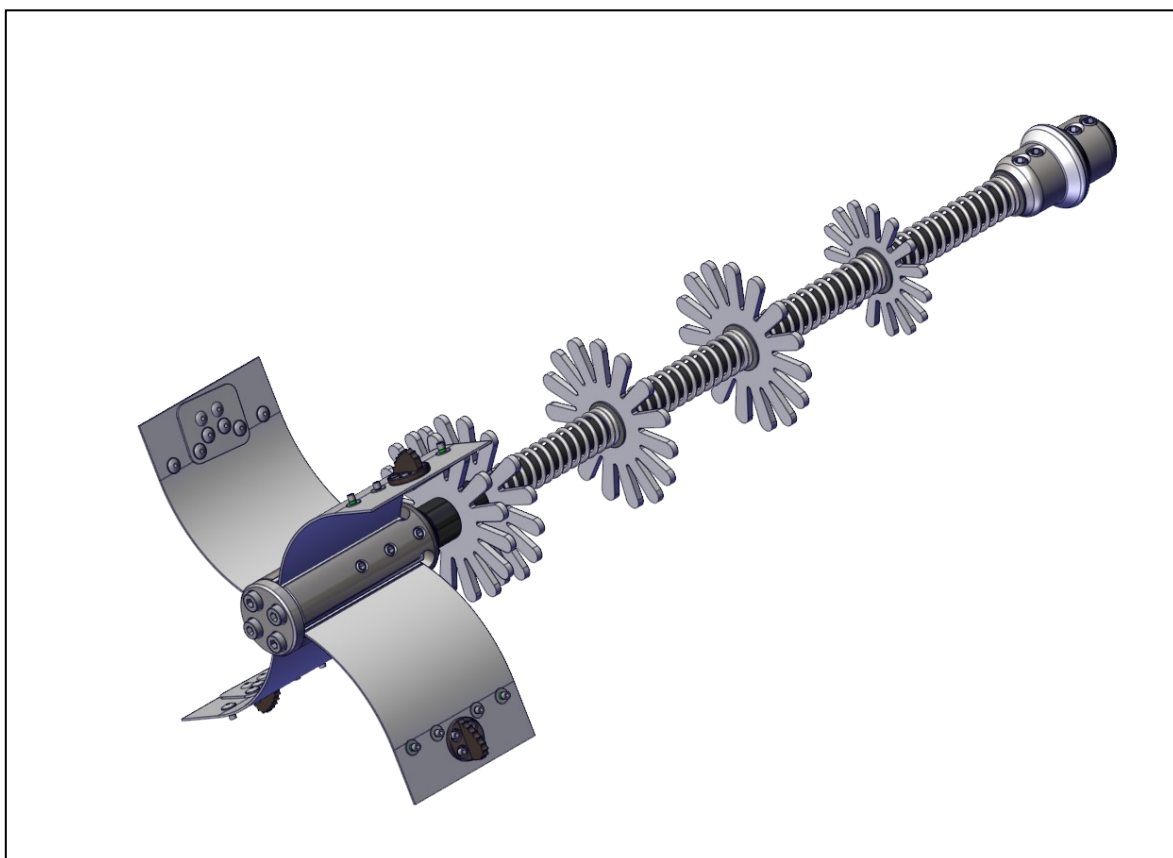


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Operating & Safety Manual

Pipe Cutter



WARNING

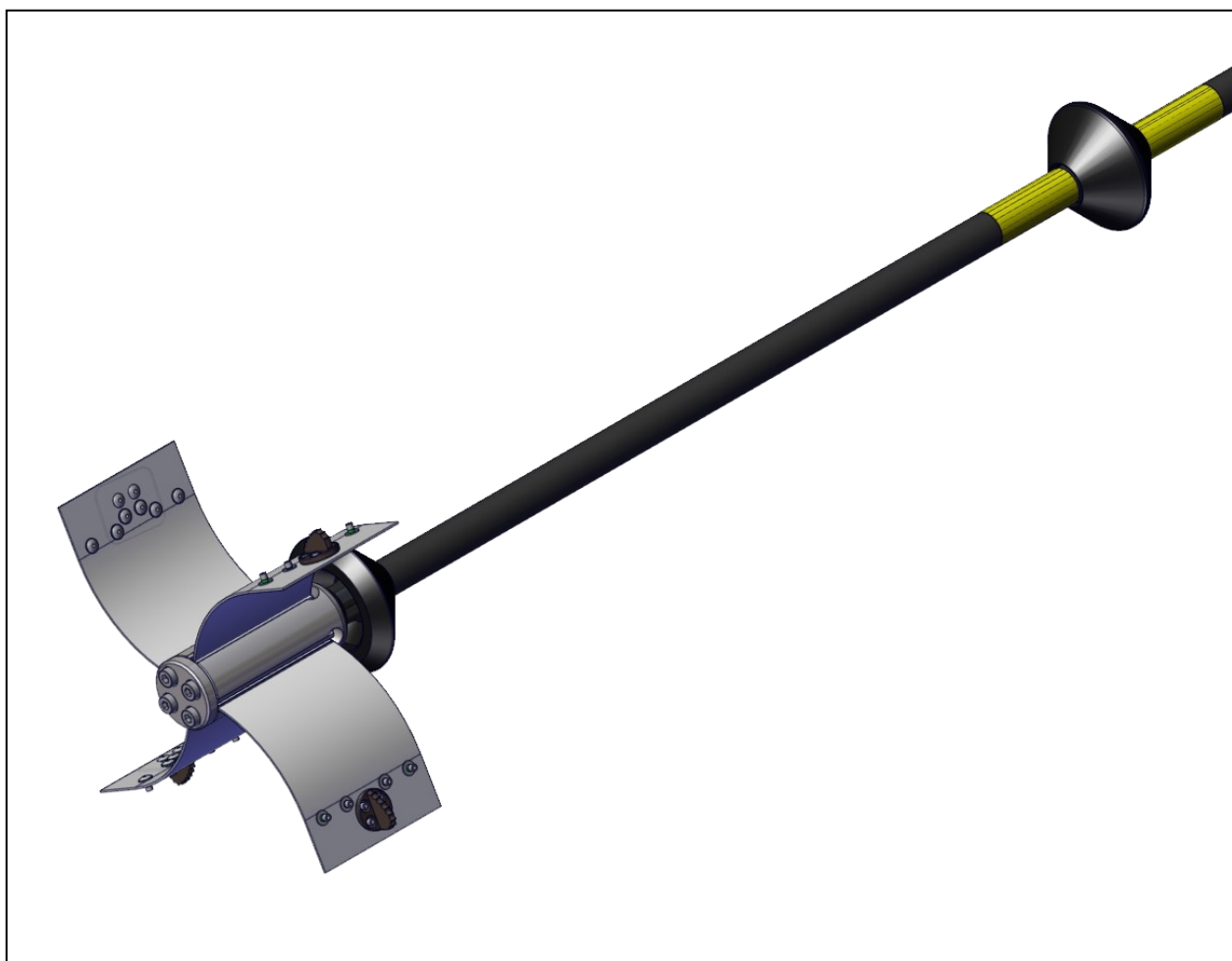
These instructions are for your personal safety. Always ensure that you have read and understood these instructions before using any of the Pipe Cutter range.



We now have resellers in the U.S., Europe & Australasia.
Locate your reseller at picotesolutions.com

TABLE OF CONTENTS

| TOPIC | PAGE/S |
|---------------------------------|--------|
| SAFETY INFORMATION & SYMBOLS | 3 |
| AVAILABLE SIZES & POWER SOURCES | 4 |
| AVAILABLE MODEL TYPES | 5 |
| SMART CUTTER™ ASSEMBLY & USE | 6 |
| MAINTENANCE & SPARE PARTS | 18 |
| PRACTICAL TIPS & SAFETY ADVICE | 19 |
| WARRANTY POLICY & PROCEDURE | 20 |



To watch practical demonstration videos, or to download an electronic copy of these Instructions, please visit www.picotesolutions.com. Please note that videos are not intended as a replacement or alternative to this operating and safety manual, but only as an additional learning tool.

SAFETY INFORMATION



This section contains important safety information. Failure to comply could result in serious injury or death.

Safety Symbols

Safety symbols are used throughout this manual to draw attention to potential hazards.



Danger risk of serious injury, follow instructions.



Danger risk of serious injury from rotating parts, follow instructions.

Personal Protective Equipment (PPE)

Always use Personal Protective Equipment when using the Pipe Cutter, including suitable overalls / protective clothing & footwear and the following:



Always wear suitable eye protection when using the Pipe Cutter to prevent sewage, chemicals or dust from irritating your eyes.



Always wear suitable ear protection when using the Pipe Cutter to prevent any hearing loss.



Always wear suitable cut-resistant gloves when using the Pipe Cutter to prevent any hand injuries. Any open injuries or skin irritations should be covered at all times to avoid contact with sewage, chemicals or dust.



Always wear a suitable respirator when using the Pipe Cutter to prevent any resin dust or fumes being inhaled or consumed, which can cause occupational asthma or dermatitis as well as eye irritation.

Always remember



Dust produced can be dangerous to your health, inflammable or explosive.

Make sure the pipe has been **opened** and **ventilated** to stop any gases forming in the lateral pipe where the work takes place.

Before assembly, use, replacement of parts or maintenance, unplug the Pipecote milling machine from its power socket.

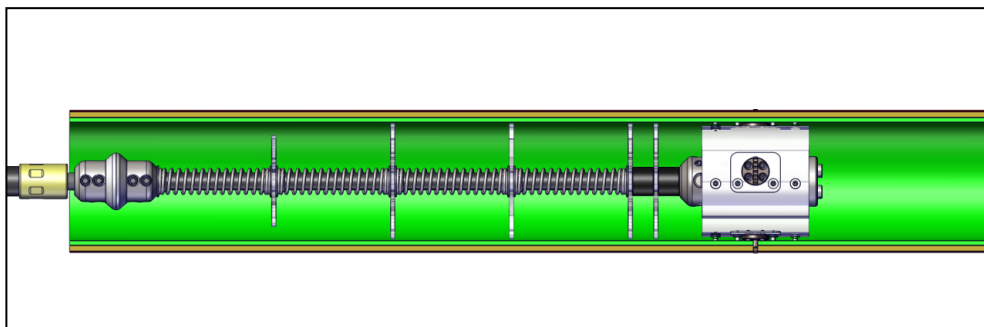
AVAILABLE SIZES & POWER SOURCES

The Pipe Cutter is used to remove excess cured lining that has overshot during the lining process into the main line. It may also be used to remove a partially collapsed liner where the lining has not bonded to the surface of the host pipe. In these cases, the Pipe Cutter can be used to cut the failed lining into short, 1m (3ft) sections and pulled out from the pipe. The Pipe Cutter can also be used to cut plastic pipes.

Selecting the correct Pipe Cutter for the job

Choose your Pipe Cutter according to the size of the original host pipe.

Place the tool completely inside the pipe before powering up the tool.



! WARNING



Pipe Cutter

| Pipe Size | Shaft size mm/inches | BEND 90° | BEND 45° |
|------------|-------------------------|----------|----------|
| DN70 (3") | 8 (1/3") | YES | YES |
| DN100 (4") | 12 (1/2") | YES | YES |
| DN150 (6") | 12 (1/2") | YES | YES |

Pipe Cutter Ultra Flex

| Pipe Size | Shaft size mm/inches | BEND 90° | BEND 45° |
|------------|-------------------------|----------|----------|
| DN100 (4") | 8 (1/3") | YES | YES |
| DN150 (6") | 12 (1/2") | YES | YES |
| DN200 (8") | 12 (1/2") | YES | YES |

CHOOSING YOUR POWER SOURCE

The Pipe Cutter can be attached to a Picote milling machine or for lengths less than 10m (32ft) to a hand drill.

The DN70 (3") Pipe Cutter can be powered by the **Micro** or **Mini Miller**.

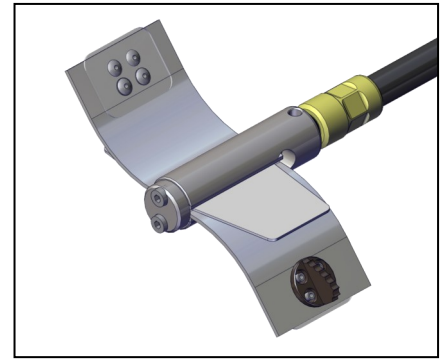
The DN100 (4") & DN150 (6") Pipe Cutters can be powered by the **Midi** or **Maxi Miller**.

The DN200 (8") Pipe Cutter can only be used with the **Maxi Miller**.

AVAILABLE MODEL TYPES

Pipe Cutter

Pipe Cutters are sold as individual components. Therefore user needs to assemble the actual tool. Instructions to do so can be found in the "Assembly & Use" section of this manual. It is recommended that Pipe Cutters are pre-assembled onto a tool leader which allows the operator to exchange the tools quickly when needed.

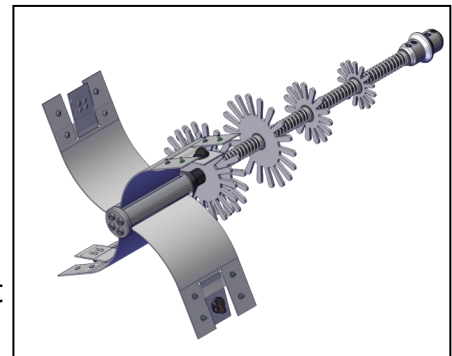


Benefits: A fast and easy way to remove excess cured lining which has overshot, during the lining process, into the main line.

| | |
|-------------|---|
| 1250000070 | Pipe Cutter DN70 (3") panel package (package includes 4 panels) |
| 1000820050 | HUB 8.5x20x50 2W |
| 1250000100 | Pipe Cutter DN100 (4") panel package (package includes 4 panels & centralizers) |
| 1001235075A | HUB 12.5x35x75 Aluminum |
| 1250000150 | Pipe Cutter DN150 (6") panel package (package includes 4 panels & centralizers) |
| 1001240100A | HUB 12.5x40x100 Aluminum |

Pipe Cutter Ultra Flex

The Ultra Flex models come fully assembled. The Ultra Flex Pipe Cutter self-centres itself into the pipe, even if the lateral pipe connecting to the main has a bend or bends in it just before the location, where the cured lining will be cut off.



Benefits: The white brushes hold the Pipe Cutter head centrally, during the cutting process, allowing a fast and accurate cut.

| | |
|------------|-----------------------------------|
| 1250000101 | Pipe Cutter DN100 (4") Ultra Flex |
| | Pipe Cutter DN150 (6") Ultra Flex |
| 1250000200 | Pipe Cutter DN200 (8") Ultra Flex |

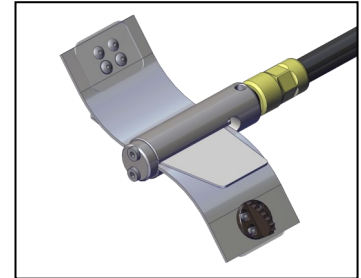
PIPE CUTTER ASSEMBLY & USE



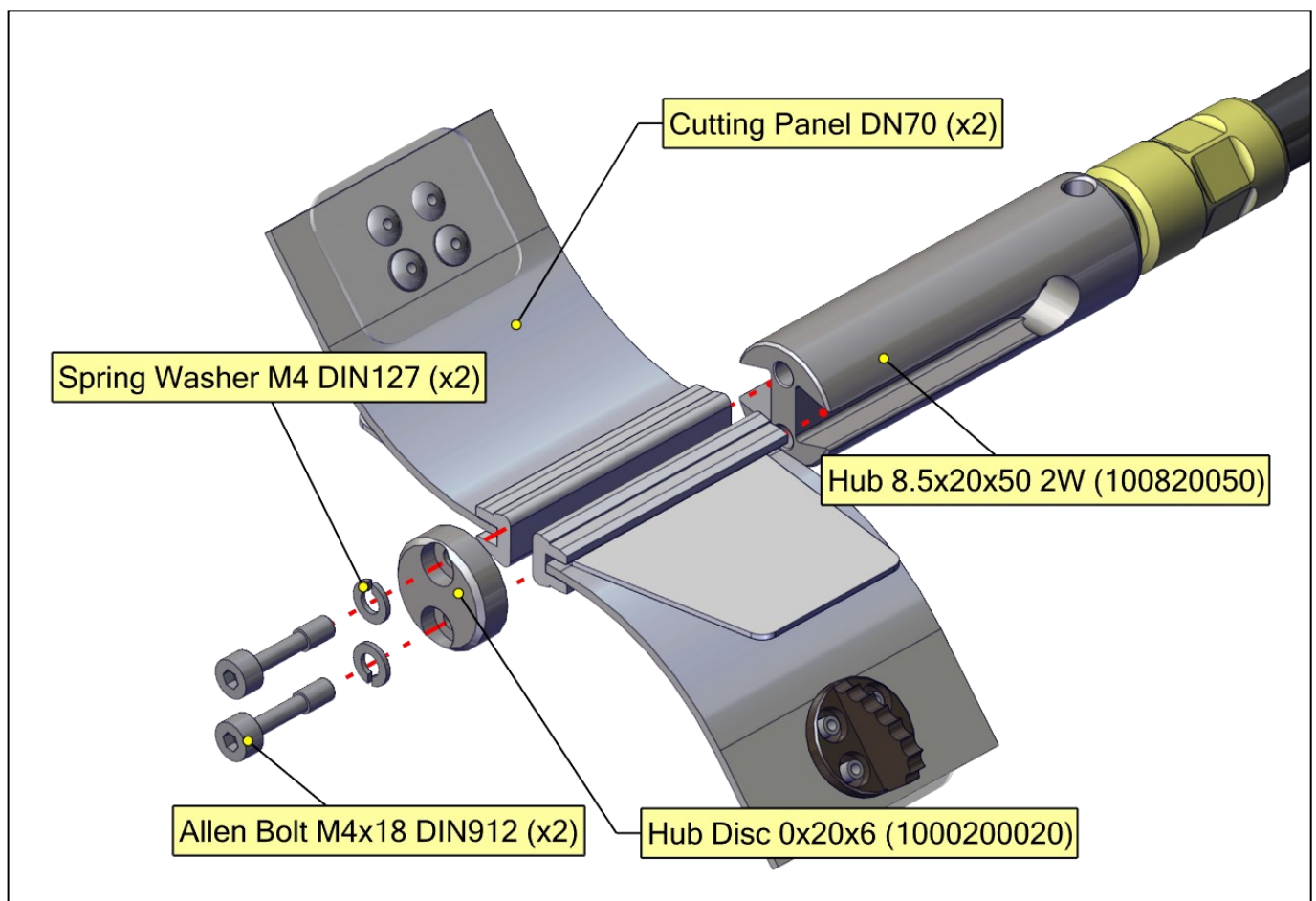
Please read safety information on page 3 before assembly and use.

Tool Assembly—Pipe Cutter DN70 (3")

Add correct size hub to the shaft. Add Cutting panels into their slots. Make sure that the cutting blades are pointed towards the lining when the Cutter is running **clockwise**. Place Hub Disc, Spring Washers and Allen Bolts. Tighten Allen Bolts evenly.



Tip! If you need to use Pipe Cutter DN70 (3") constantly, the fastest way to begin working is to build up a tool leader which you can quickly connect to the shaft with shaft connector.



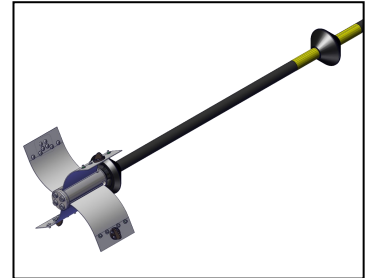
PIPE CUTTER ASSEMBLY & USE



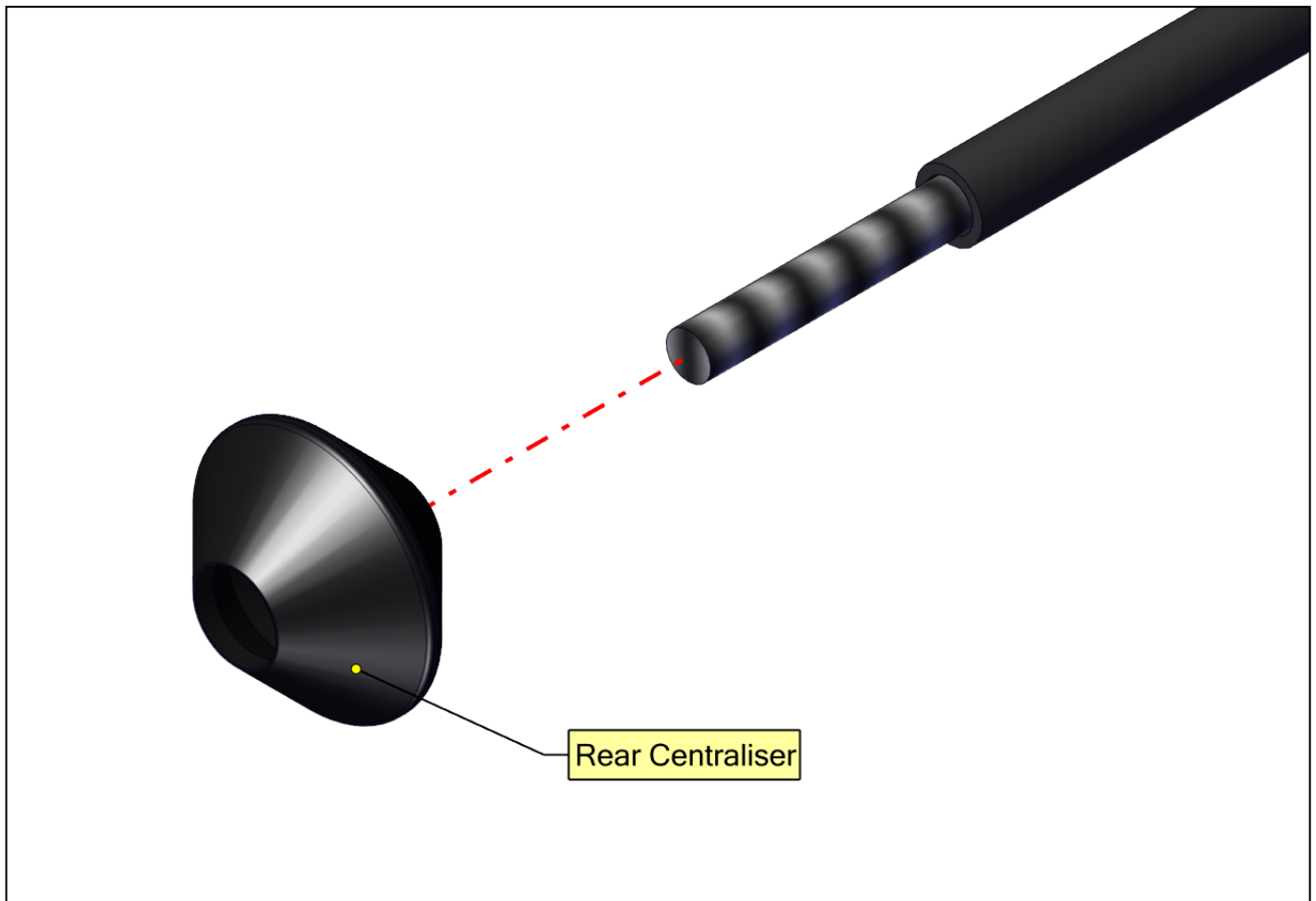
Please read safety information on page 3 before assembly and use.

Tool Assembly—Pipe Cutter DN100 (4") & DN150 (6")

Step 1. The shaft without outer casing should be the length of a hub slot. Position the Large Centralizer about 50cm (20") from the end of the outer casing.



Tip! If you need to use Pipe Cutter DN100 (4") or DN150 (6") constantly, the fastest way to begin working is to build up a tool leader which you can quickly connect to the flexible shaft with shaft connector.



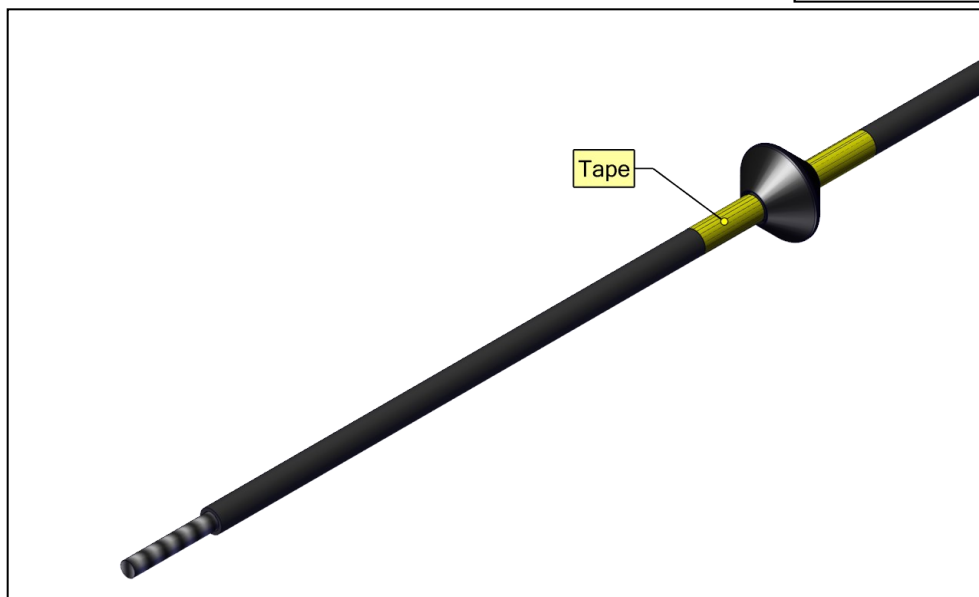
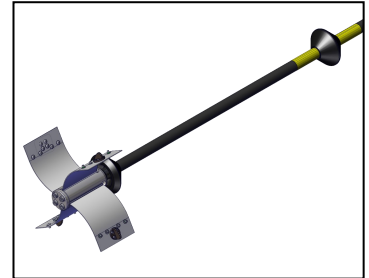
PIPE CUTTER ASSEMBLY & USE



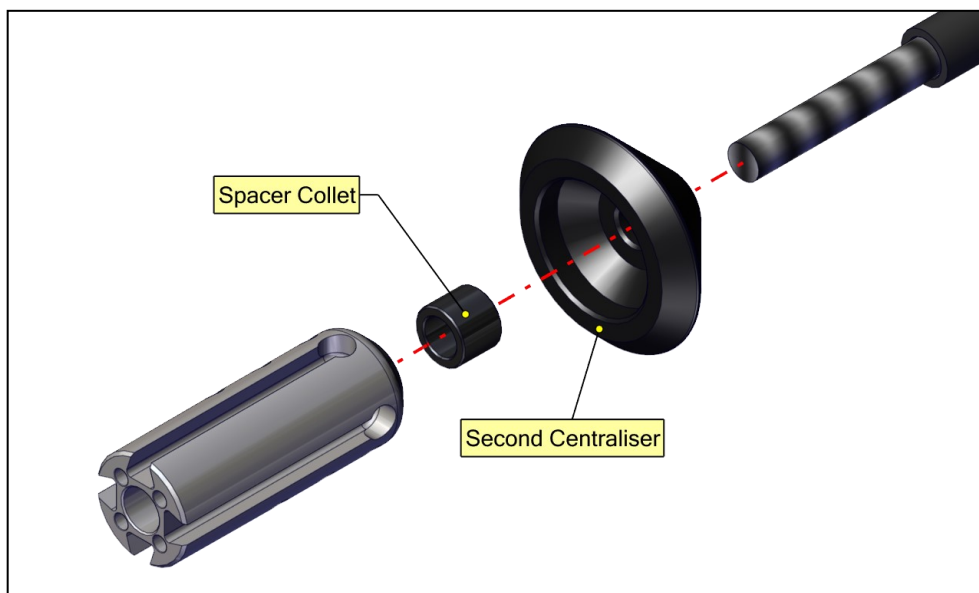
Please read safety information on page 3 before assembly and use.

Tool Assembly—Pipe Cutter DN100 (4") & DN150 (6")

Step 2. Add tape on the both sides of the Rear Centraliser to secure it at the correct spot.



Step 3. Add Second Centraliser, Spacer Collet and Hub. Push Centraliser against the outer casing.



PIPE CUTTER ASSEMBLY & USE

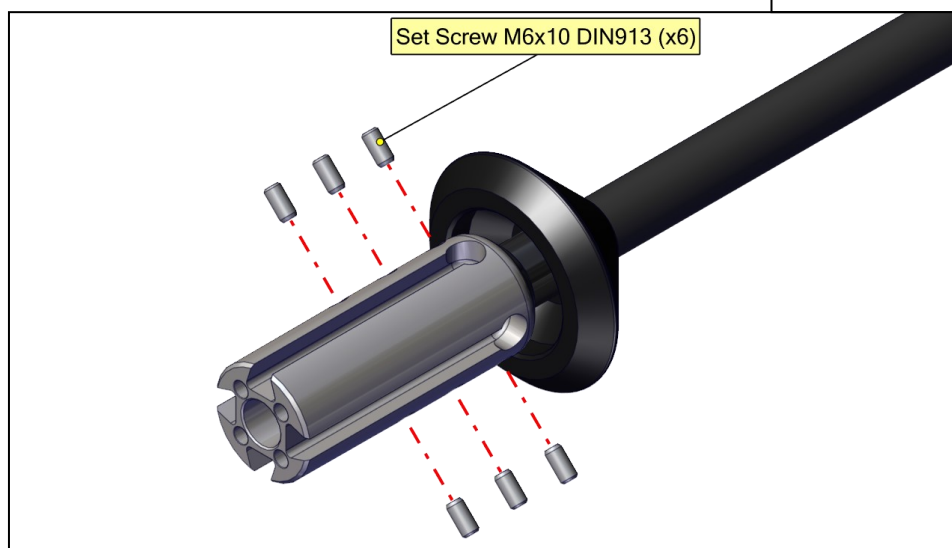
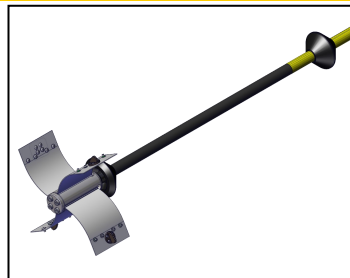


Please read safety information on page 3 before assembly and use.

Tool Assembly—Pipe Cutter DN100 (4") & DN150 (6")

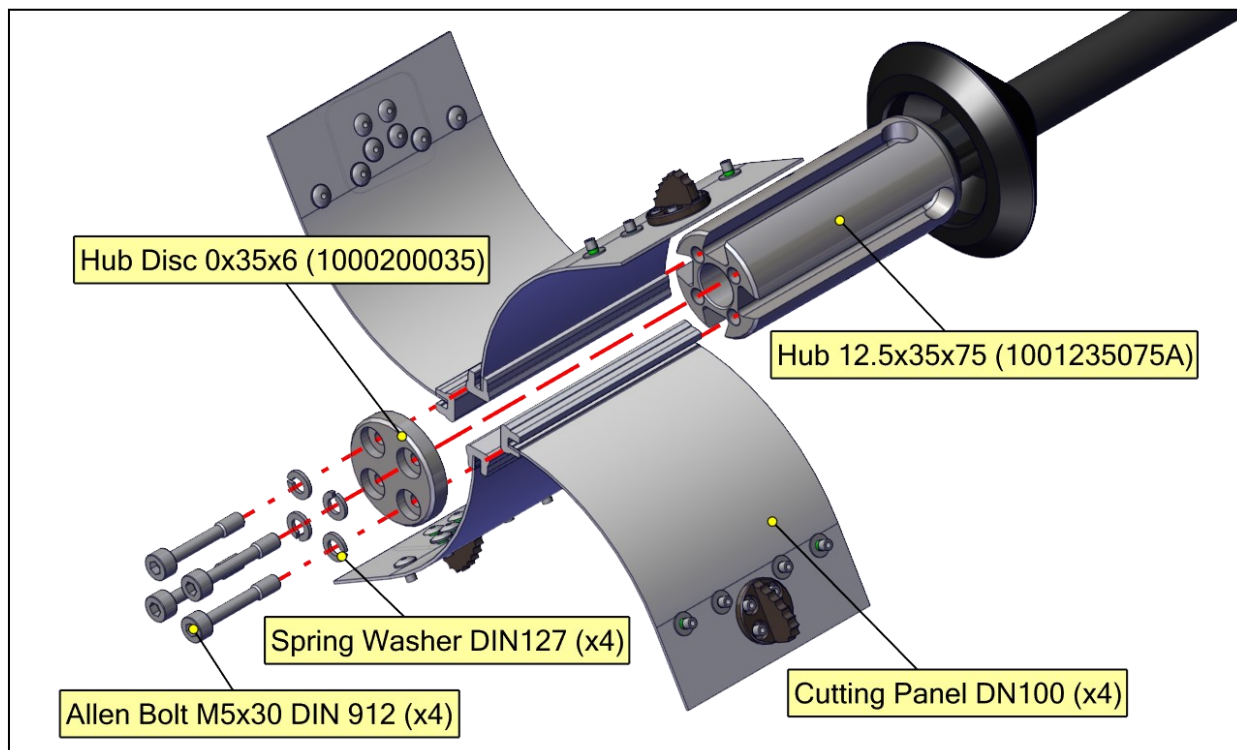
Step 4. Tighten the Set Screws with a hex key.

Recommended to use Loctite 542.



Step 5 for DN100 (4"). Add Cutting Panels, Hub Disc, Spring Washers and Allen Bolts. Make sure that the cutting blades are pointed towards the lining when the Cutter is running **clockwise**.

Recommended to use Loctite 542.



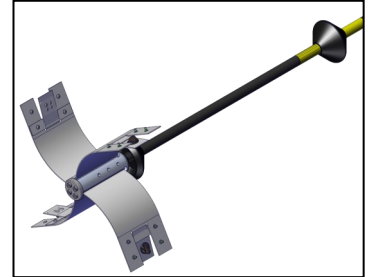
PIPE CUTTER ASSEMBLY & USE



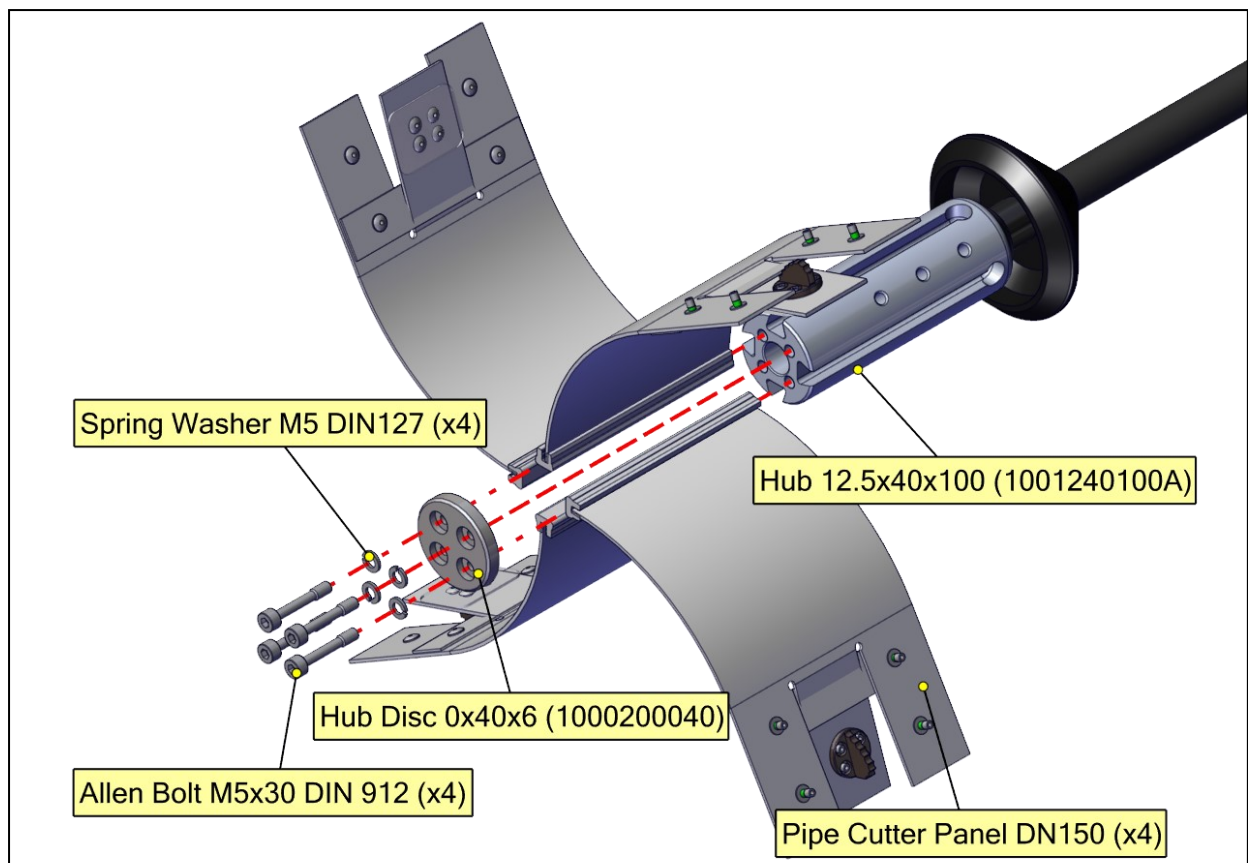
Please read safety information on page 3 before assembly and use.

Tool Assembly—Pipe Cutter DN150 (6")

Step 5 for DN150 (6"). Add Cutting Panels, Hub Disc, Spring Washers and Allen Bolts. Make sure that the cutting blades are pointed towards the lining when the Cutter is running clockwise.



Recommended to use Loctite 542.



PIPE CUTTER ASSEMBLY & USE

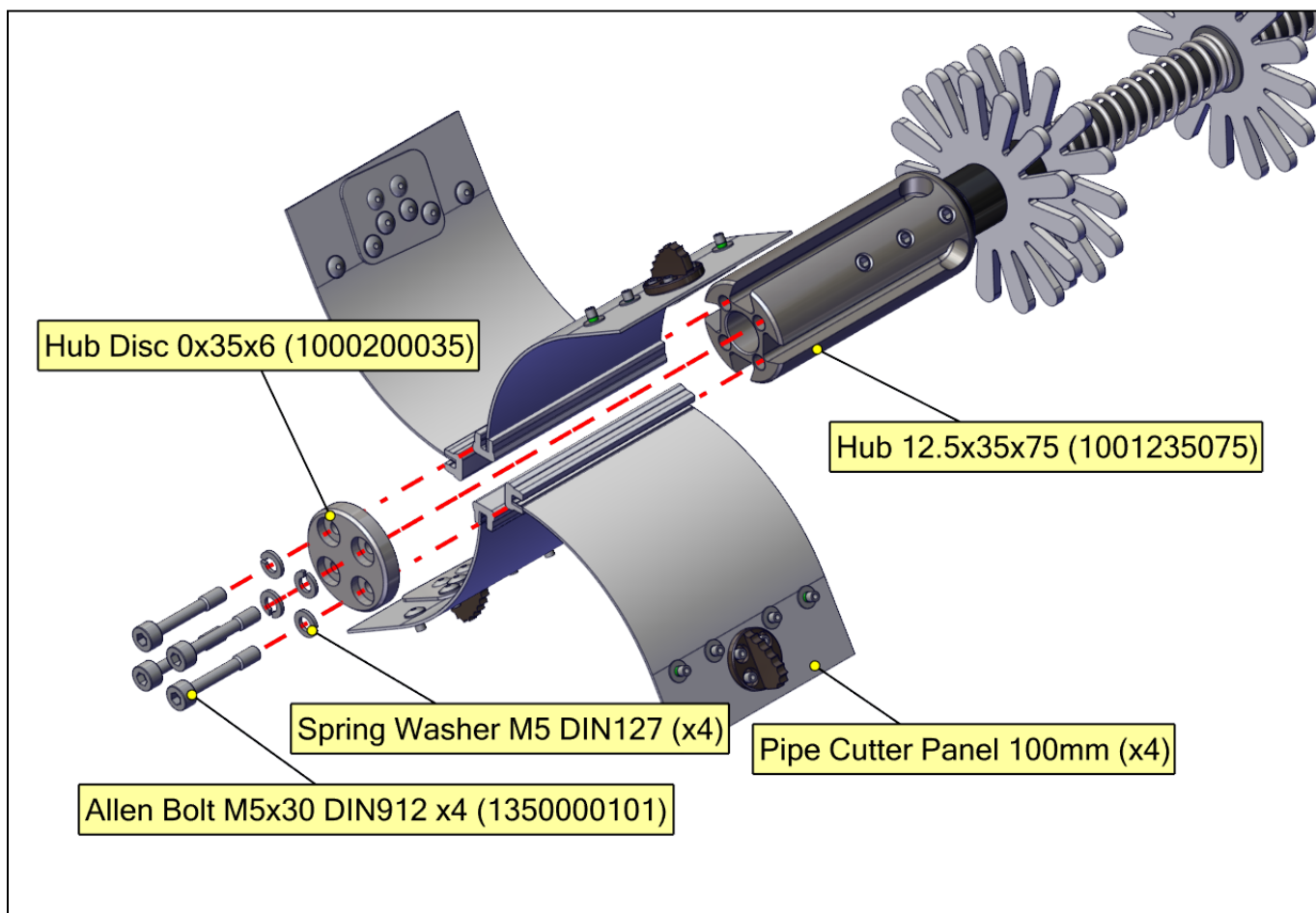
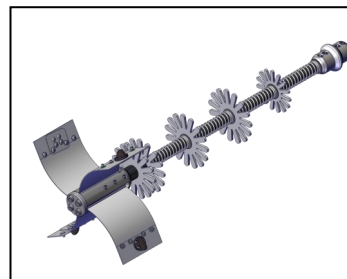


Please read safety information on page 3 before assembly and use.

Tool Assembly—Pipe Cutter Ultra Flex DN100 (4")

Remove the Allen Bolts, Spring Washers and Hub Disc. Change the worn out Cutting Panels. Repeat in opposite order to mount them. Tighten the Allen Bolts evenly.

Recommended to use Loctite 542.



PIPE CUTTER ASSEMBLY & USE

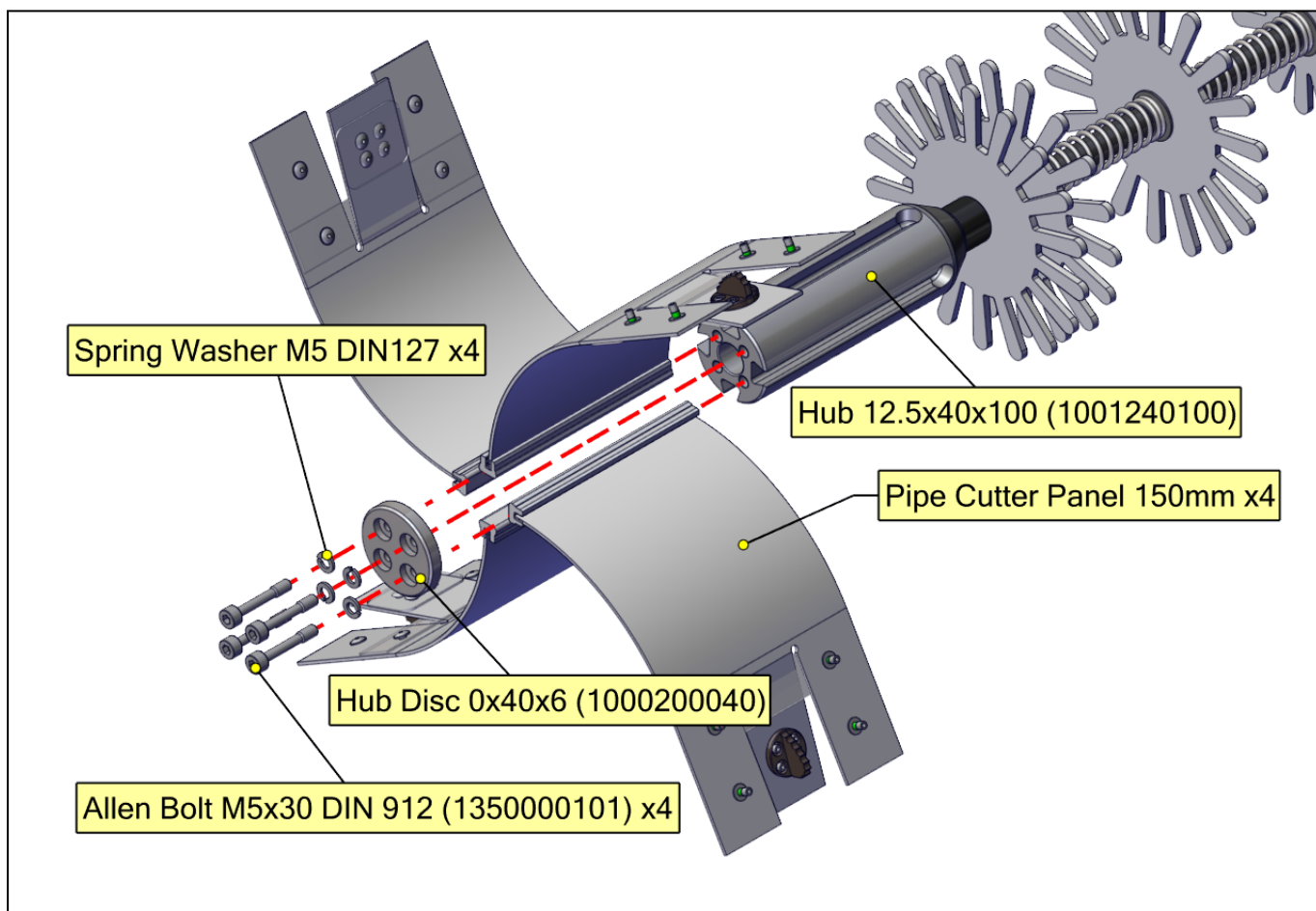
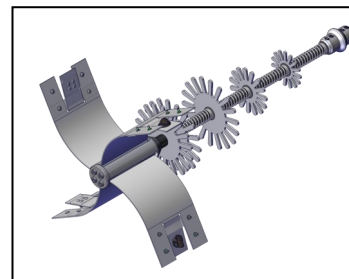


Please read safety information on page 3 before assembly and use.

Tool Assembly—Pipe Cutter Ultra Flex DN150 (6")

Remove the Allen Bolts, Spring Washers and Hub Disc. Change the worn out Cutting Panels. Repeat in opposite order to mount them. Tighten the Allen Bolts evenly.

Recommended to use Loctite 542.



PIPE CUTTER ASSEMBLY & USE

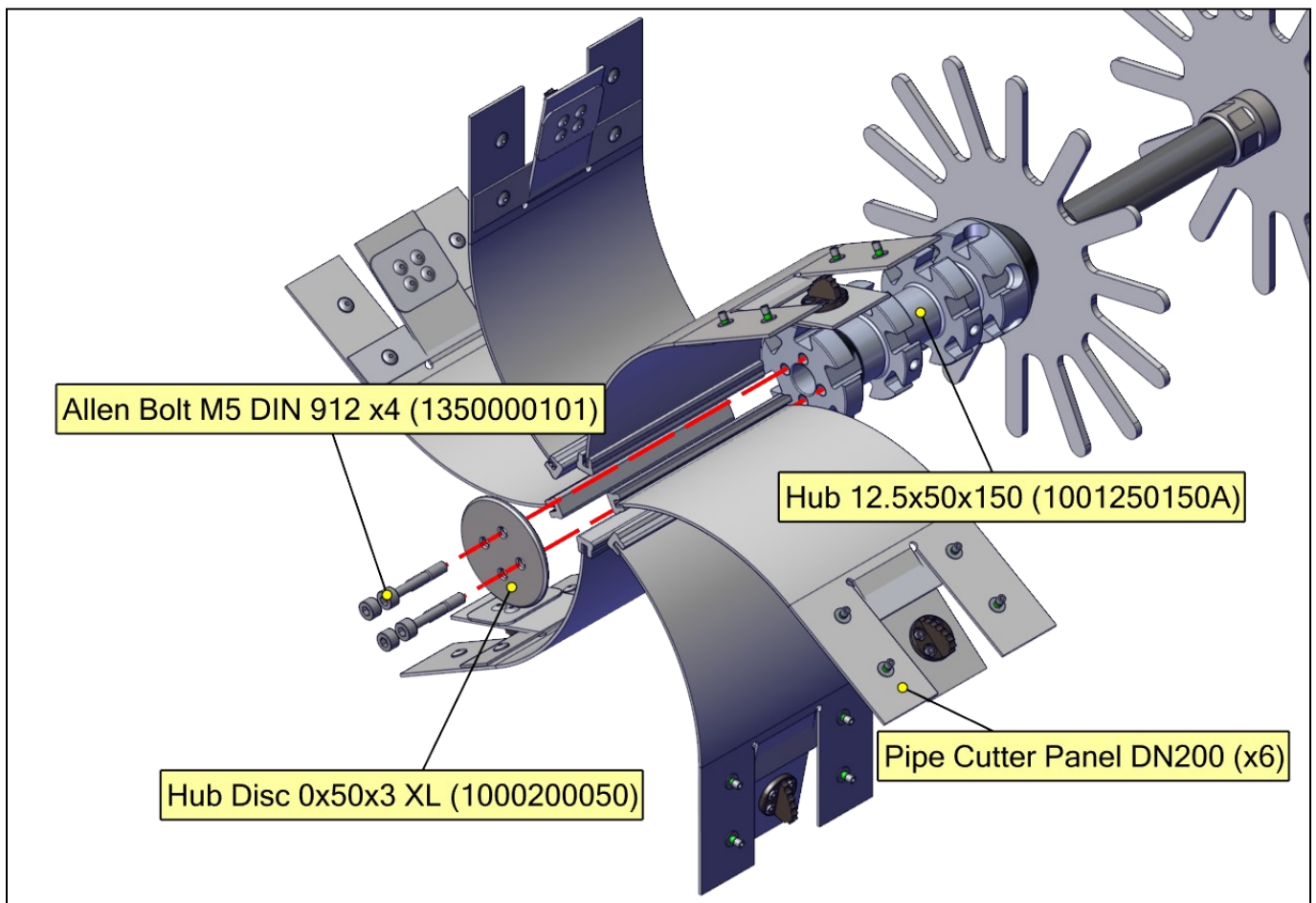
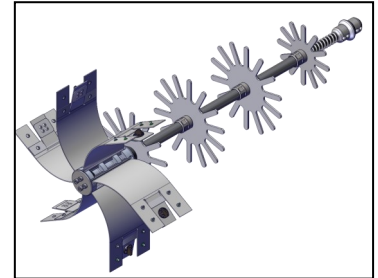


Please read safety information on page 3 before assembly and use.

Tool Assembly—Pipe Cutter Ultra Flex DN200 (8")

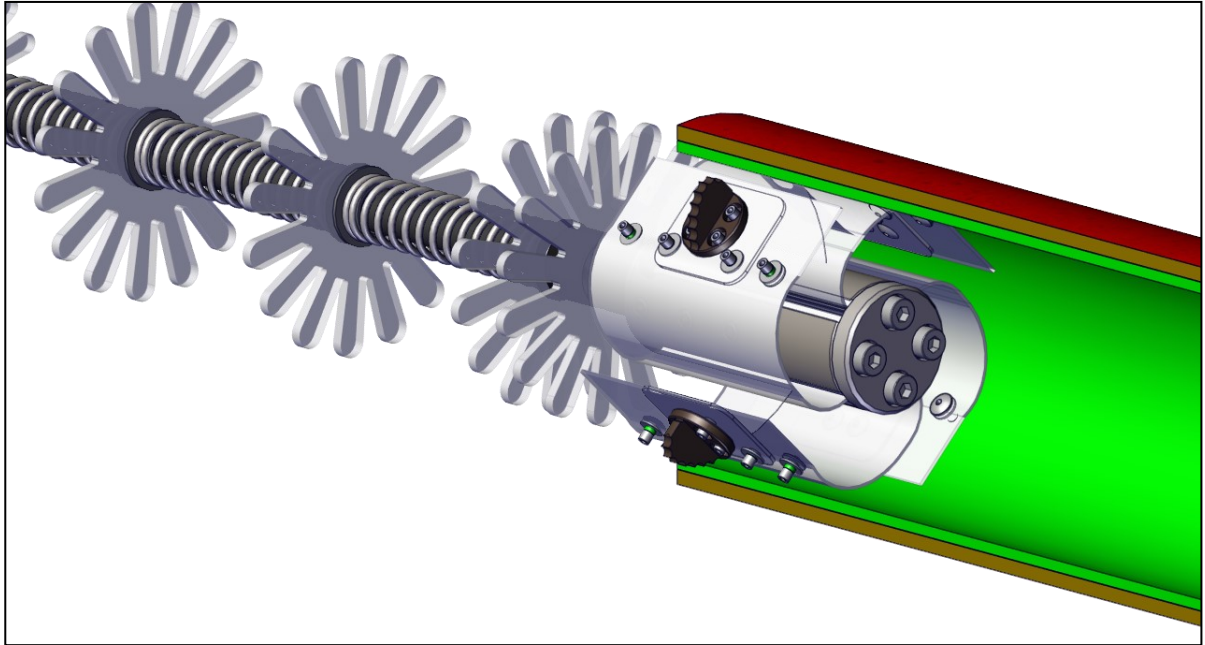
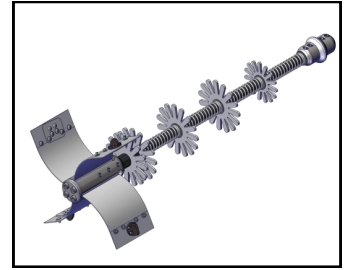
Remove the Allen Bolts and Hub Disc. Change the worn out Cutting Panels. Repeat in opposite order to mount them. Tighten the Allen Bolts evenly.

Recommended to use Loctite 542.

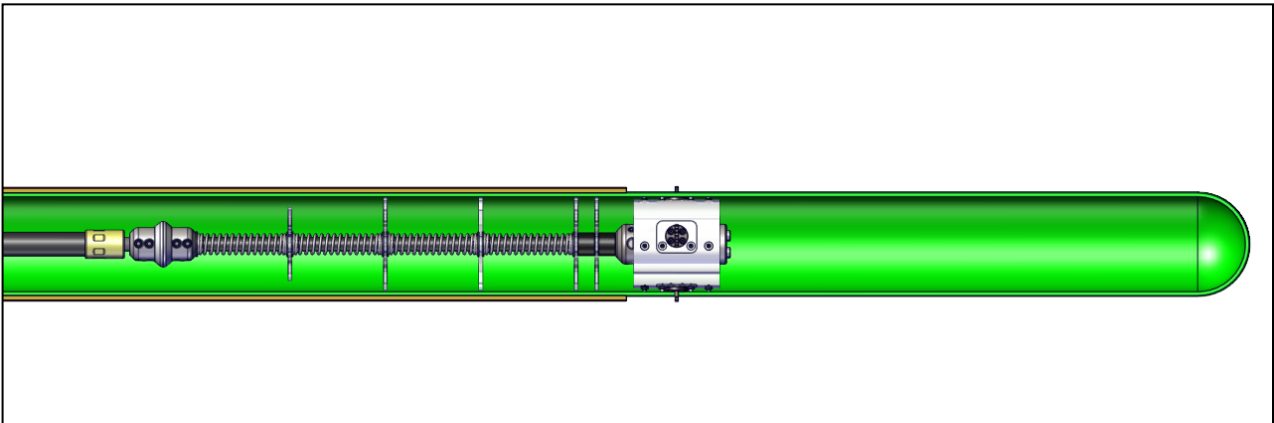


User Guide—Cutting the Excess Lining

Step 1. Wrap the panels evenly around the hub so that the blades point outwards. Put the entire Pipe Cutter inside the pipe.

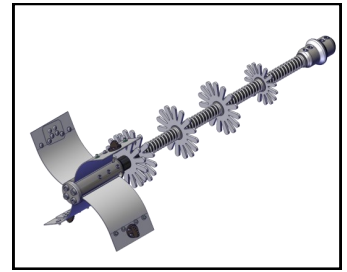


Step 2. Use a CCTV camera to measure the cutting spot. Push the Pipe Cutter into correct spot. Use a low rotation speed when positioning the Pipe Cutter in the correct spot. When the tool is in correct place, change the rotation speed to maximum. Use the CCTV camera monitor the cutting process. **Do not let the tool move while cutting. Never work blind!**

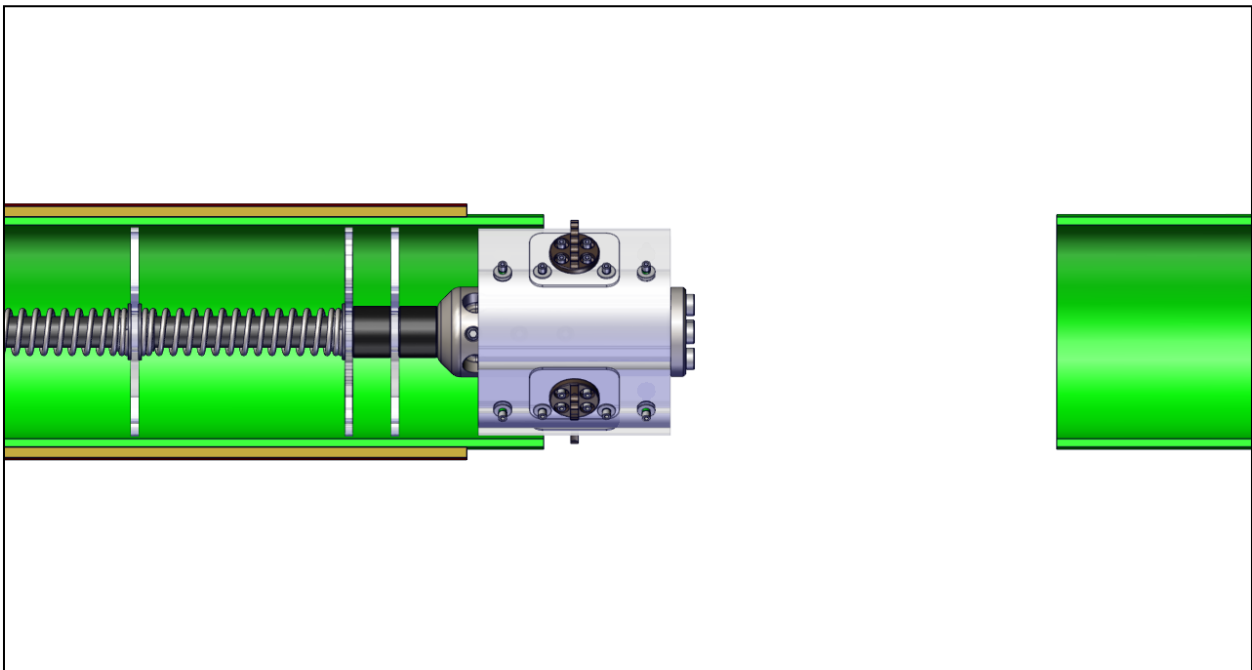


User Guide—Cutting the Excess Lining

Step 3. After the successful cutting operation the cut piece of liner and Pipe Cutter will fall into the main. Change the rpm back to 500. Turn the power on and let the cutter turn around for a moment in the main before pulling it back inside the lateral pipe.



Do not pull back the Pipe Cutter from the main unless the cutter is turning at low speed. If the cutter is not running at a low rpm while pulling it back, the Pipe Cutter panels will spring open into the main. It will then be difficult to pull it back into the lateral. Running the Pipe Cutter at low rpm will help to collapse the panels back around the hub for easy removal.



Using Pipe Cutter



Before work

Select the correct size of Pipe Cutter for your job. Ventilate the working site properly. Ensure that the pipes are grounded / earthed. Use CCTV camera to measure the correct spot for cutting. Use CCTV camera to observe while working.

Twist the cutting panels so that you create a tight roll and place the tool into the pipe. Place the Pipe Cutter completely inside the pipe before powering it up. Sometimes the Pipe Cutter can be used to cut out collapsed liner if the collapse is partial and the lining has not attached the host pipe. If Pipe Cutter is used for liner removal, ensure that the vacuum extraction is ready (dry cleaning).

During use



Turn the power on. Set the rpm at lowest (500 rpm). Check that rotation direction is forward (clockwise). While you push the cutter to the right spot, you can facilitate the movement of the cutter by increasing the rpm slightly in the bends for a short period of time. However, be careful not to damage the liner. Observe the right spot where to position the Pipe Cutter blade with a CCTV camera. Turn the power on for a moment and double check that the Pipe Cutter is in the right spot. If the spot is right, hold on to the shaft tightly so that the Pipe Cutter does not shift or move.

Change the rpm to 1000—2000 (max 3000rpm). Hold on tightly to the shaft so the Pipe Cutter does not move. Turn the power source on with full speed as mentioned before. Follow the cutting process with a CCTV camera. The blades should point outwards. As soon as the cut is finished turn the power off immediately.

Change the rpm back to 500. Turn the power on and let the cutter turn around for a moment in the main before pulling it back inside the lateral pipe. Verify with a CCTV camera that the blades are positioned upwards. If they are not, push the Pipe Cutter back to the main and try to approach again.

If Pipe Cutter is used to cut out collapsed liner, cut the failed lining in about 1m (3ft) sections and using the Picote Grabber to pull them out from the pipe. Pipe Cutter can also be used to cut plastic pipes.

Do not push the tool with high force—let the tool do the work. If excessive force or high speeds are used the tool might get stuck or break the tool, shaft or the pipe. Be extra careful when working inside plastic host pipe as the Pipe Cutter can easily cut through the host pipe also.

**Please read safety information on
page 3 before assembly and use.**

Using Pipe Cutter



! WARNING

After use

Be careful when removing the tool out from the pipe. **Always turn the power off before you remove the tool out from the pipe! There is a risk of serious injury or even death!**

Check out the condition of the tooling and shaft. Replace worn-out parts. If part of the shaft is damaged, it can be removed using a disc cutter and then shorten outer casing accordingly.

The Cutting Blades can be sharpened with rotating tool if needed. Do not remove more material than you must because the hard layer is only 2-3 mm thick.

RECOMMENDATIONS

Do not power up the Pipe Cutter products outside of the pipe! The tooling needs to fit completely inside the pipe before use.

Select the correct size Pipe Cutter for the intended pipe.

Always use CCTV camera while working.

Create Leaders for the Pipe Cutters to enable quick tool changes and extend the service life of the flexible shaft.

Use Pipe Cutter Ultra Flex if the cutting position is not in the straight section of the pipe.

MAINTENANCE

CARING FOR THE FLEXIBLE SHAFT

The flexible shaft is pre-treated with **The Picote Flexible Shaft Lubricant (1350000020)** and the casing replaced prior to shipping. Always inspect the condition and apply lubricant between the flexible shaft and its outer casing when required. If necessary remove the shaft from its casing to treat. When the casing has been replaced, rotate manually for even coverage.



FASTENER SCREWS

If you are unable to tighten the fastener screws properly, due to worn out hex socket heads, replace the fastener screws immediately. Otherwise, a Smart Cutter™ can fall into the pipe while working.



DRILL HEAD BOLTS

Use Thread Sealant (Loctite 542 or similar) when tightening bolts which secure Front Metal Panel/Front Plastic Panel/Drill Head to the Hub. Otherwise, the front parts can fall into the pipe while working.

SPARE PARTS

| | |
|------------|---|
| 1250000070 | Pipe Cutter DN70 (3") panel package (package includes 4 panels) |
| 1250000100 | Pipe Cutter DN100 (4") panel package (package includes 4 panels & centralizers) |
| 1250000150 | Pipe Cutter DN150 (6") panel package (package includes 4 panels & centralizers) |
| 1250100100 | SPARE PART: Pipe Cutter Centralizer package DN100 (4") |
| 1250150150 | SPARE PART: Pipe Cutter Centralizer package Dn150 (6") |
| 9125000200 | SPARE PART: Pipe Cutter DN200 (8") spare panels (6) |

TRAINING

For information about product training and support contact Picote Solutions or your authorized Picote reseller.

PRACTICAL TIPS & SAFETY ADVICE

Here are some useful tips on how to get the most out of your Picote system.
Always use the recommended tools for maintenance to avoid personal injury.



CUTTING THE FLEXIBLE SHAFT



Always inspect the flexible shaft before each use. If there are potential weak points or the shaft is damaged, cut off the damaged length using an angle-grinder. This should be done outside in a clear area as there will be sparks generated by the process.



SHAFT ROUNDER



The shaft rounder smooth's the end of the flexible shaft, preventing the user from being cut by the otherwise sharp metal edge .



ATTACHING A SHAFT SOCKET



Feed the shaft through the socket to the end and **securely fasten**. The outer casing should reach all the way to the base of the shaft socket to protect the shaft.

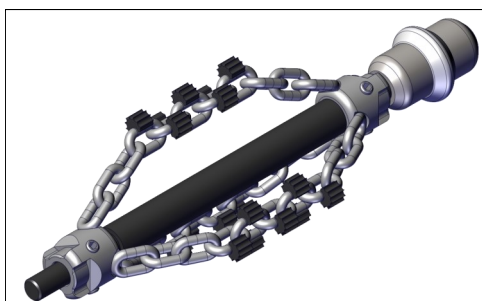
ADDING A VISUAL MARKER FOR SAFETY



Attach a visual marker (tape) to the outer casing of the flexible shaft. Place it around half a meter from the end point of the shaft. The mark will indicate the tools location and prevent possible injuries when the tool is removed from the pipe, including injury by rotating parts.



CREATING LEADERS



You can extend the life of the flexible shaft and increase productivity on site by making individual leaders for the most commonly used tools. This way you easily and quickly switch between tooling.

WARRANTY POLICY AND PROCEDURE

Limited Warranty:

Picote warrants to the original End User that the Product purchased by such End User will operate in accordance with and substantially conform to their published specifications when shipped or otherwise delivered to the End User and for a period of one (1) year, except electric motors for which the warranty period shall be six (6) months, provided, however, that Picote does not warrant any claim or damage under this

Warranty if such claim or damage results from:

1. Consumable parts or normal wear and tear resulting from use of the Products,
2. Product overload or overheated motor,
3. Regular periodic maintenance of Products,
4. Misuse, neglect, or improper installation or maintenance of the Products, or use of Products not for their intended purpose,
5. Products that have been altered, modified, repaired, opened or tampered with by anyone other than Picote or an authorized Picote Service Centre, or unsuitable or unauthorized spare parts, accessories or third party products when using the Products or;
6. the use of the Products not in compliance with their respective Documentation, user manuals, safety and maintenance instructions, and any usage restrictions contained therein, or
7. accident, fire, power failure, power surge, or other hazard.

Otherwise, the Products are sold AS IS. End User is responsible for using the Products within their specifications and instructions as contained in the Documentation.

EXCEPT AS SPECIFIED IN THIS WARRANTY, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS, AND WARRANTIES INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, SATISFACTORY QUALITY OR ARISING FROM A COURSE OF DEALING, LAW, USAGE, OR TRADE PRACTICE, ARE HEREBY EXCLUDED TO THE EXTENT ALLOWED BY APPLICABLE LAW. TO THE EXTENT AN IMPLIED WARRANTY CANNOT BE EXCLUDED, SUCH WARRANTY IS LIMITED IN DURATION TO THE WARRANTY PERIOD. BECAUSE SOME STATES OR JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, THE ABOVE LIMITATION MAY NOT APPLY. This disclaimer and exclusion shall apply even if the express warranty set forth above fails of its essential purpose.

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Accepted:



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