



## Operating & Safety Manual

The Smart Cutter™ & Special Drill Head lateral cutters with step-by-step instructions for use

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.



### **WARNING**

These instructions are for your personal safety. Always ensure that you have read and understood these instructions before using the Smart Cutter™ and Special Drill Head.



Contact HammerHead at +1 920.648.4861  
[www.hammerheadtrenchless.com](http://www.hammerheadtrenchless.com) / [www.hydraliner.com](http://www.hydraliner.com)

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To watch assembly and practical demonstration videos, or to download an electronic copy of these instructions, please visit [www.picotesolutions.com](http://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



### WARNING

*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

## Personal Protective Equipment (PPE)

Always use personal protective equipment when using the Smart Cutter™, Twister and Miller Systems, including suitable overalls / protective clothing & footwear and the following:



Always wear suitable eye protection when using the Smart Cutter™, Twister or Miller Systems to prevent epoxy dust irritating your eyes.



Always wear suitable ear protection when using the Smart Cutter™, Twister or Miller Systems to prevent any hearing loss.



Always wear suitable cut-resistant gloves when using the Smart Cutter™, Twister or Miller Systems to prevent any hand injuries. Any open injuries or skin irritations should be covered at all times to avoid contact with epoxy dust.



Always wear a suitable ventilation mask when using the Smart Cutter™, Twister or Miller Systems to prevent any epoxy resin dust being inhaled or consumed, which can cause occupational asthma or epoxy dermatitis as well as eye irritation.

## Always remember



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

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



Before assembly, use, replacement of parts or maintenance, unplug the Picote milling machine or your hand drill from its power socket. **Failure to comply may lead to serious injury including electric shock or injury from rotating parts.**

# Smart Cutter™ Assembly

Please note that a Smart Cutter™ assembly video is available on our website [www.picotesolutions.com](http://www.picotesolutions.com) or on YouTube [http://youtu.be/6\\_y6fFO3klo](http://youtu.be/6_y6fFO3klo)

Choose the largest hub that will fit inside the drain. Check the hub table to make sure that it will navigate the necessary bends. If the hub doesn't fit, simply select a smaller size (see table1).

Select the correct size of side grinding panel and choose one front metal or two front plastic panels (back to back). If the mouth of the pipe is plastic, only use the front **plastic** panels.






A = Aluminum

PRODUCT NUMBER	HUB	HUB SIZE	SIDE GRINDING PANELS	FRONT METAL PANEL	FRONT PLASTIC PANEL
1001240200A	8" for ½ shaft	0.5x1.57x8"	8" x 10"	5"	5"
1001240150A	6" for ½ shaft	0.5x1.57x6"	6" x 8" / 6" x 6"	5"	5"
1001240100 / A	4" for ½ shaft	0.5x1.57x4"	4" x 6"	3.3"	3.3"
1001235075 / A	3" for ½ shaft	0.5x1.38x3"	3" x 5"	2.17"	2.17"
1000835050 / A	3" short for ½ shaft	0.33x1.38x2"	2" x 4"	2.17"	2.17"

## ASSEMBLING A 3" / 4" / 6" & 8" SMART CUTTER™

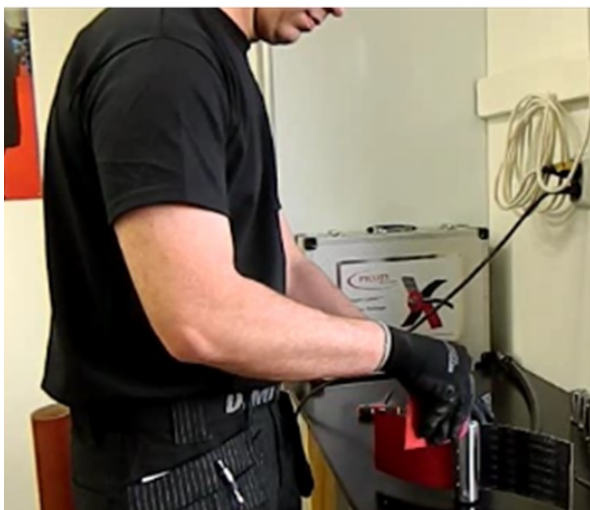
You will need the following parts to assemble your Smart Cutter:



				
Hub	Side & Front Panels	Front Drill Head Ridged	Blank Hub Disc	Flexible Shaft 12mm

### Step 1.

Slot the 4 side grinding panels into the hub.



**Side grinding panel:**  
Rotational direction is clockwise.



**Side grinding panel:**  
Rotational direction is anti-clockwise.



The rotational direction is determined from the rear face of the hub.

The red side should be facing **clockwise**.

## Step 2.

Attach the front metal panel (or two red plastic panels with red side facing both ways) to the front drill head and attach to the front of the hub:



Please note – if you are using the Smart Cutter™ only to grind simply screw on the blank hub disc without any front panels at this stage.



Make sure that all 4 screws are securely tightened.

## Step 3.

The shaft without outer casing should be the length of a hub slot:



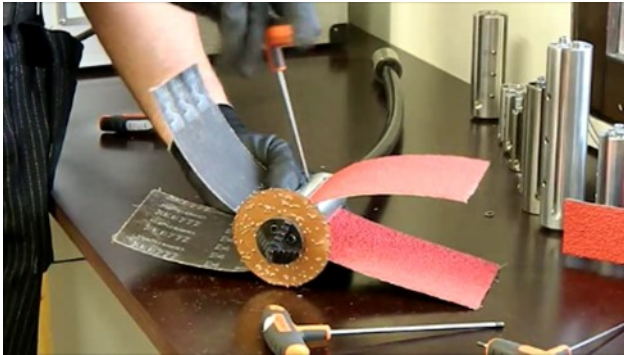
The shaft should go to the end of the hub slot

Now push the shaft inside the hub to the end.



## Step 4.

Securely tighten all screws on the hub:



There are three screws on both sides of the hub.

**Your Smart Cutter™ is now ready to use**



Remember - always turn off power **after** your Smart Cutter™ has been safely removed from the drain.

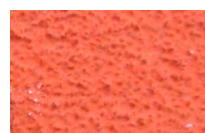
**NARROW HUBS (DIAMETER 20mm) DO NOT HAVE FRONT DRILL HEAD.**

THE INITIAL CUT IS MADE BY ATTACHING A **SPECIAL DRILL HEAD** DIRECTLY TO THE FLEXIBLE SHAFT. THE SMART CUTTER™ IS THEN USED TO SMOOTH THE OPENING.



**ASSEMBLING A 1¼" / 1.5" / 2" OR 3" NARROW SMART CUTTER™**

The 1¼" – 2" Smart Cutter™ range consists of one hub and two side grinding panels without wedges:



Loosen the set screws and attach the desired size grinding panels on both sides ensuring the grinding surface is facing clockwise, then tighten the set screws.

## TIP: EXTEND LIFESPAN

Use a Sleeve with Bearing for the shaft outer casing to extend the lifespan of the shaft and the outer casing. Available in three sizes.



The 2" & 3" Narrow Smart Cutter™ consists of one hub, two side grinding panels with wedges and one blank hub disc:



Remove the hub disc, slot the side grinding panels in each slot, replace the hub disc and securely tighten.

## CHOOSING YOUR POWER SOURCE

The Smart Cutter™ can be attached to one of a range of milling machines or to a hand drill.



### Milling Machines

There are currently four versions of electric milling machine available.



MICRO



MINI



MIDI

MAXI

Choosing the correct machine for the job:

MILLER	FOR PIPE DIAMETER	RANGE	SHAFT DIAMETER
MICRO	2"-3" DN 2"-4" for cleaning with chain	39ft	⅛"
MINI	2"-3" 2"-4" for cleaning with chain	55ft	⅛"
MIDI	3"-8"	39ft	½"
MAXI	4"-8"	100ft	½"

A shaft connector can be used to temporarily extend the shaft to original length if the shaft is cut shorter.





If you are attaching the Smart Cutter™ to a milling machine simply follow steps 3&4 on pages 5&6.

## Attaching the flexible shaft to a hand drill



Attach the Smart Cutter™ to the flexible shaft by following steps 3 & 4.

To attach the flexible shaft to a hand drill you will need the following:

			
Shaft Socket with Bearing $\frac{1}{8}$ " or $\frac{1}{2}$ " shaft	Hex Key	Flexible Shaft $\frac{1}{8}$ " or $\frac{1}{2}$ " shaft	Hand Drill 2000 - 3000rpm

1. Loosen all 4 shaft socket fastener screws .
2. Push the flexible shaft inside the socket as far as it goes.
3. Fasten the screws firmly. **TIP:** Never attach shaft directly into the drill's chuck. This will cause damage to the shaft and improper operation due to slippage.

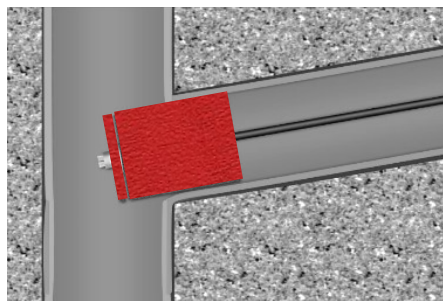
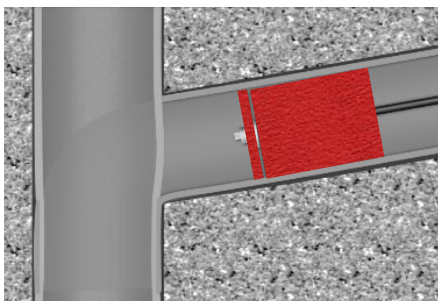
## RE-INSTALLMENT

### Drilling process



Check the bends in the drain and locate the branch using a CCTV camera. Add a tape mark to verify placement and transfer this distance to the outer casing.

1. Make sure your cutter has been correctly assembled; the red side grinding panels should be facing clockwise and be securely mounted (see page 4). Check that the rotational direction is **clockwise**.
2. Wrap the red side grinding panels around the hub and place inside the drain.
3. Power on the milling machine and push the flexible shaft to the branch.
4. Checking with the camera, verify that the cutter is at the correct location.
5. Insert a vacuum extraction system in the drain.
6. Holding the flexible shaft firmly, drill the branch open, **stopping immediately** as soon as the cutter punctures the lined wall to avoid damaging the lined pipe.
7. Remove the Cutter gradually - the slow rotational movement helps to pull the cutter out of the drain.
8. Turn off your power source **after** the cutter has been safely removed from the drain.








## Six-panel Smart Cutter™

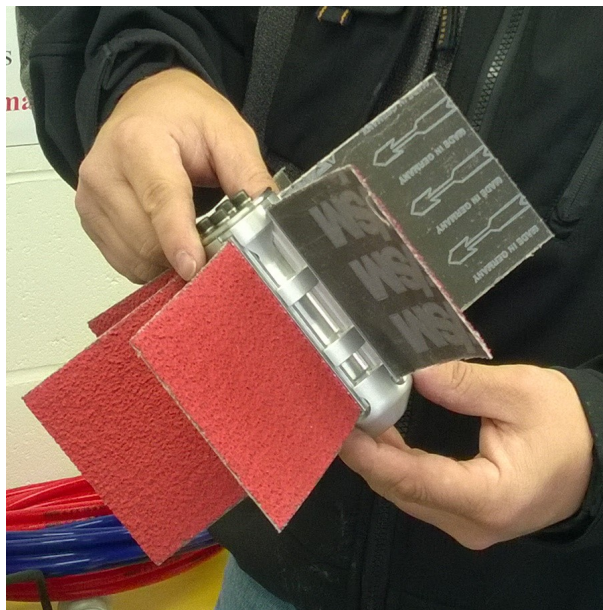


A six-panel hub is available in two sizes: 4"/6" and 6"/8".

		
4"/6" or 6"/8"	XL hub disc	Side grinding panels: 4"x4" or 6"x6"

### Assembly

1. Slot the 6 side grinding panels into the hub. The red side should be facing **clockwise**.
2. Add the XL hub disc to the end and make sure that all 4 screws are securely tightened.
3. Attach the Smart Cutter™ to a Midi or Maxi Miller. Maxi Miller recommended.



**TIP:** In addition to reinstatements, the 6-panel Smart Cutter efficiently removes wrinkles and other inconsistencies in the pipe.

**TIP:** Use this Smart Cutter in bigger sizes — 6" and 8" for a faster result.

## VACUUM EXTRACTION SYSTEM

It is necessary to operate a vacuum extraction system inside the drain for the duration of the re-instatement:



- Removes dust from drain
- Prevents a build-up of dust on the camera head, reducing maintenance.
- Stops dust escaping into building during reinstatement, which is not only cleaner, but safer for the operator and the resident.

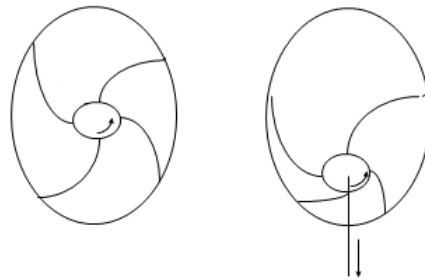
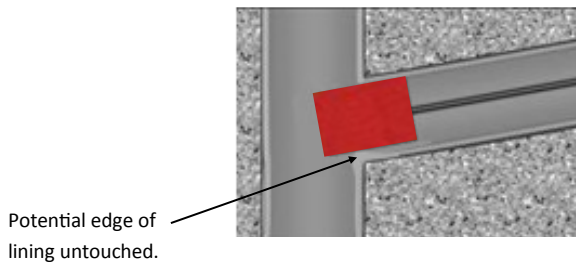
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## RE-STATEMENT: FINE-TUNING OPTIONS



### Grinding

Commonly the entry point to be reinstated is not round but oval in shape. For this reason, some edges of the liner within the vertical pipe are left untouched:






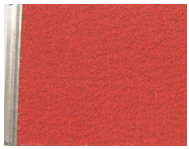
1. Set up your Smart Cutter™ with a blank hub disc (see page 2).
2. Verify your rotational direction.
3. Insert cutter back into pipe and push to the branch.
4. Position cutter so that the it centres around remaining edges.
5. Turn on vacuum extraction system.
6. Grind edges until they smooth and even.
7. Monitor progress with a camera.



## Removing any additional under-cut liner



To smoothen any additional under-cut liner edges of the connection you will need the following parts for your Smart Cutter™:

						
4-panel hub	OR	6-panel hub		Smart Guide: Small 4"/6" or Large 6"/8"		Side Grinding Panels

### Step 1.

Choose the appropriate Smart Guide



### Step 2.

Slot 4 or 6 side grinding panels into the hub depending on which hub is used.



## Removing any additional under cut liner cont.



Smart Guide: Small 4"/6" or  
Large 6"/8"



Comes with a specialty  
1/4" bolt

### Step 3.

Insert the Smart Guide into the hub.



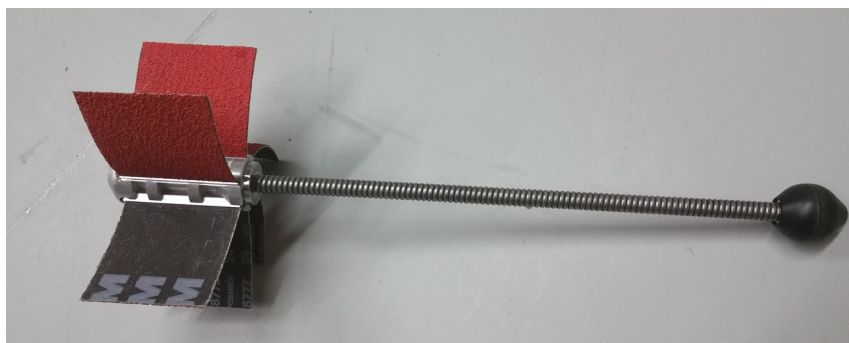
### Step 4.

Securely tighten the bolt with an allen key.



### Step 5.

Follow the Smart Cutter™ instructions for use.







**You are now ready to remove any additional under-cut liner at the connection**



## Removing epoxy build-ups and other additional under-cut liner



To remove an epoxy build-up at the **base** of the connection you will need the following tools for your Smart Cutter™:

			
Steering Axle 55	Bearing	Counter Weight 40 / 60	Steering Wire

### Step 1.

Remove hub disc/front panels from face of hub



Slip bearing over the steering axle and insert into hub

### Step 2.

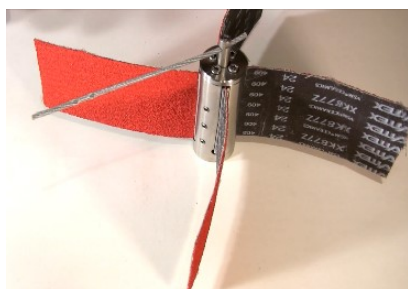
Place hub disc with hole over the steering axle



Securely tighten all screws

### Step 3.

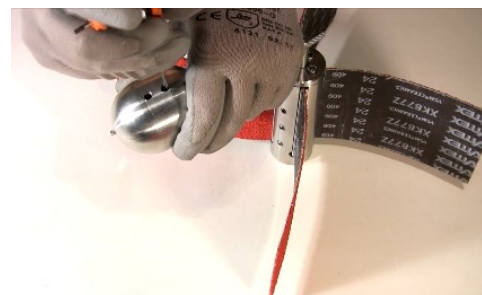
Thread the wire through the steering axle



Securely tighten

### Step 4.

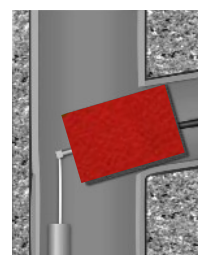
Feed the wire all the way through the weight



Securely tighten both screws





**TIP:** You can add two weights in a row if necessary

**You are now ready to remove an epoxy build-up or any additional under-cut liner at the base of your connection**





To remove an any under-cut liner at the **top** of the connection is a two-person task. One person will need to be at the main pipe entrance and the other at the lateral entrance. You will need the following tools for your Smart Cutter™:

			
Steering Axle 55	Bearing	Wire Hook 1/3" / 1/2"	Steering Wire

### Steps 1-3

REPEAT STEPS 1 - 3 FROM PREVIOUS PAGE (13) SO THAT THE STEERING AXLE WITH BEARING HAS BEEN SECURELY FIXED TO THE SMART CUTTER™ HUB, AND THE STEERING WIRE HAS BEEN FIRMLY ATTACHED TO THE STEERING AXLE.

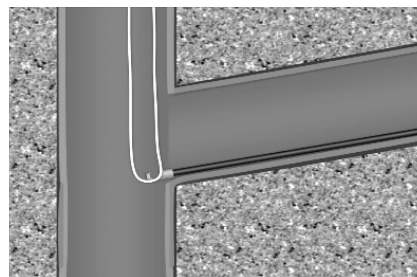
#### Step 4.

Attach the wire hook to the end of the flexible shaft



#### Step 5.

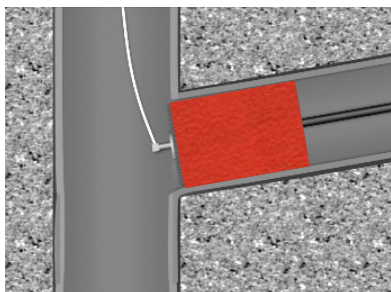
Make a loop with the wire & feed down main pipe



Hook wire and pull through from lateral

#### Step 6.

Attach the wire to the steering axle & tighten. Push back into lateral.



#### Step 7.

With your colleague holding the wire at the main pipe end, push and pull the cutter.



**You are now ready to remove any under-cut liner from the top of a connection**

## CHOOSING THE BEST HUB FOR THE JOB

In the Smart Cutter™ System you have access to a selection of hubs. You can custom make a cutter to suit your needs. Always choose the biggest possible hub that can go through the narrowest point of the drain. If your chosen hub doesn't fit in the drain/bend, simply select a smaller hub. For multiple or sharp bends choose a narrower or shorter hub.

**For example in a 6" drain with bends, use hub:**

(½" flexible shaft), 0.5" (shaft conduit) x 1.57" (hub diameter) x 6" (length of panel slot)

PRODUCT NUMBER	HUB SIZE (inches)	90° BEND (inches)	45°BEND (inches)	STRAIGHT (inches)	SHAFT (inches)	MATERIAL	MILLER POWER SOURCE
1001240200	0.5x1.57x7.87	10	8	8	1/2	SS or Al	Maxi
1001240150	0.5x1.57x5.91	8	6	6	1/2	SS or Al	Midi
1001240100	0.5x1.57x3.94	6	4	4	1/2	SS or Al	Midi
1001235075	0.5x1.38x2.95	4	4	3	1/2	SS	Midi
1001235050	0.5x1.38x1.97	3	3	3	1/2	SS	Midi
1000835050	0.33x1.38x1.97	3	3	3	1/3	SS	Micro, Mini, Midi + adapter
1000820075	0.33x0.79x2.95	4	4	3	1/3	SS	Micro, Mini, Midi + adapter
1000820060	0.33x0.79x2.36 (NO WEDGE)	3	3	2	1/3	SS	Micro, Mini, Midi + adapter
1000820050	0.33x0.79x1.97	3	3	2	1/3	SS	Micro, Mini, Midi + adapter
1000820040	0.33x0.79x1.57 (NO WEDGE)	2	2	2	1/3	SS	Micro, Mini, Midi + adapter
1000615040	0.26x0.59x1.57 (NO WEDGE)	2	2	1¼	¼	SS	Micro
1000615030	0.26x0.59x1.18 (NO WEDGE)	2	1¼	1¼	¼	SS	Micro
1000615025	0.26x0.59x0.98 (NO WEDGE)	1¼	1¼	1¼	¼	SS	Micro
1000612025	0.26x0.47x0.98 (NO WEDGE)	1¼	1¼	1¼	¼	SS	Micro

SS = Stainless Steel, Al= Aluminium, NO WEDGE= Side grinding panel does not have a wedge

## Using the Special Drill Head

Although a firm favourite, the Special Drill Head is an aggressive tool that should only be used by an experienced technician who has practiced repeatedly with the tool before using it at a jobsite.

- For the reinstatement of cast iron pipes 1¼" - 4"
- The **only** Picote lateral cutter for below 2".
- Works alongside the Smart Cutter™ 2 wedge hubs.

Special Drill Head size	For pipe diameter	Shaft size
0.77"x40"	1¼"-2"	⅓"
1.11"x2"	2"-3"	⅓"
1.11"x2"	2"-3"	½"
1.57"x2.36"	3"	½"
2"x3.15"	3"-4"	½"

### Attaching the Special Drill Head

To attach the Special Drill Head simply feed the flexible shaft all the way through the central hole (at the rounded end) and tighten the screws on both sides securely.




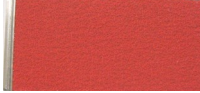


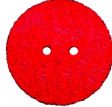
### Troubleshooting

- First practice with the tool before taking to a worksite.
- If the Special Drill Head is slightly too big/long for the drain, cut down the prongs to required length.
- Make sure that all screws are securely tightened before you begin.
- Always operate the Special Drill Head in a **clockwise** direction. If the tool gets stuck keep going if possible, otherwise rotate the tool anti-clockwise for a very short period to try to resolve the problem.
- Remove from the drain as soon as you have made the opening cut and smooth edges using the Smart Cutter™.

## AVAILABLE PARTS









Please note that many of the parts shown here are available in a variety of sizes. Please check with your reseller which products best suit your requirements.

### Smart Cutter™ 3" - 8"

				
HUB ALUMINIUM / STAINLESS STEEL	SIDE GRINDING PANEL WITH WEDGE	BLANK HUB DISC	FRONT METAL PANEL	FRONT PLASTIC PANEL

				
FRONT DRILL HEAD 3 RIDGED HARDENED	SHAFT SOCKET WITH BEARING	ADDITIONAL FLEXIBLE SHAFT	SLEEVE WITH BEARING	SHAFT CONNECTOR

### Smart Cutter™ 3" - 8" Fine-tuning accessories

							
STEERING AXLE	HUB DISC	BEARING	INTERLOCKING RING	BEARING CLEANSER	COUNTER WEIGHT	STEERING WIRE	WIRE HOOK











### Smart Cutter™ 1¼" - 2"

						
HUB FOR NO WEDGE	HUB FOR 2 WEDGE	SIDE GRINDING PANEL NO WEDGE	SIDE GRINDING PANEL WITH WEDGE	SHAFT SOCKET WITH BEARING	ADDITIONAL FLEXIBLE SHAFT	SLEEVE WITH BEARING

### Smart Cutter™ 1.57" - 4" accessories / Special Drill Head

	
SPECIAL DRILL HEAD 1	SPECIAL DRILL HEAD 2

## Additional tools

				
CIRCLIP PLIERS	CUTTER FOR STEERING WIRE	CUTTER FOR SIDE GRINDING PANELS	SHAFT OUTER CASING CUTTER	CUTTER FOR OUTER CASING ON SHAFT
				
SHAFT ROUNDER	HEX KEY	COMBO HEX KEY	WRENCH	TOOLBOX

## Milling Machines

			
MICRO	MINI	MIDI	MAXI

MIDI	MIDI / MAXI	MICRO / MINI	MIDI	MAXI
				
ADAPTER FOR SHAFT DIAMETER CHANGE $\frac{1}{2}'' / \frac{1}{3}''$	32ft EXTENSION OF FLEXIBLE SHAFT	SLEEVE WITH BEARING $\frac{1}{3}''$	SLEEVE WITH BEARING $\frac{1}{2}''$	SLEEVE WITH BEARING $\frac{1}{2}''$ THICK OUTER CASING

MICRO / MINI	MIDI / MAXI
	
SHAFT CONNECTOR $\frac{1}{3}''$	SHAFT CONNECTOR $\frac{1}{2}''$



# Maintenance

## General warnings

### 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 grinding panel can detach from the hub during reinstatement and fall into the pipe.

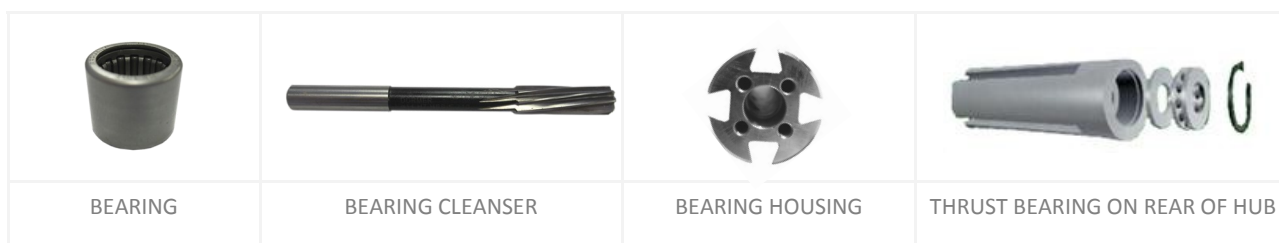


### CCTV

Use a separate CCTV camera in the drain to monitor the reinstatement to ensure that the cutter is placed correctly. Check that the camera unit is not too close to the cutter to avoid any damages to the camera unit. Please note that flexible shaft moves around a lot inside the pipe which could potentially damage or break the CCTV camera.

### CLEANING & MAINTAINING THE BEARINGS / BEARINGS HOUSING

If you are not able to set the bearing and steering axle into the bearing housing, due to dirt or rust, use the cleansing tool to clean the housing. On inspection, and as necessary, apply **petroleum jelly** to the base of the steering axle before sliding the bearing over. The same process should be repeated for the thrust bearing and interlocking ring, located at the rear of the hub.



### CARING FOR THE FLEXIBLE SHAFT



The flexible shaft is pre-treated with **paraffin oil** and the casing replaced prior to shipping. Always inspect the condition and apply oil 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. Also, use sleeves with bearings to extend the life of the outer casing.

**TIP:** If paraffin oil is unavailable, air compressor lubricating oil may be used as an alternative.

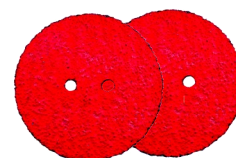
### EXTENDING THE LIFESPAN OF YOUR FRONT PANELS

The lifespan of the front metal panels or front plastic panels on the Smart Cutter™ can be extended:

1. Remove the front drill head.
2. Take off the front panel/s and turn them around.
3. Replace the front drill head and secure tightly.



Front metal panel



Front plastic panels

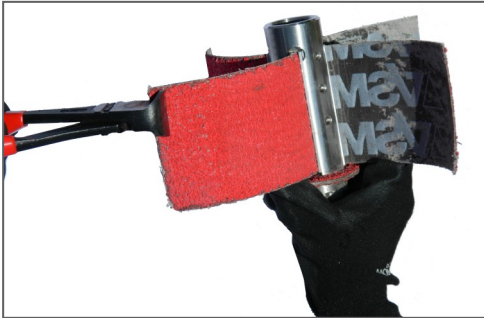
## PRACTICAL TIPS & SAFETY ADVICE

Here are some useful tips on how to get the most out of your Smart Cutter™ system.

Always use the recommended tools for maintenance to avoid personal injury.



### SIDE GRINDING PANELS



It is possible to use the side grinding panels more than once, and potentially several times, by simply clipping the worn edges with the side grinding panel cutter .



### 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 .



### STEERING WIRE



Use the steering wire cutter to trim the steering wire to your desired length .



### THRUST BEARING



Remove the interlocking ring at the base of the hub using circlips pliers. This will provide access to the thrust bearing for maintenance (see page 19).



## 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.



## 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.

## ATTACHING THE FLEXIBLE SHAFT



The length of the shaft without its outer casing should be the same as the length of the side panel slots on your chosen hub—now push this inside the hub as far as it will go and securely tighten all of the fastener screws.

## ADDING A VISUAL MARKER FOR SAFETY



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



# TROUBLESHOOTING

## Frequently asked questions

### Q. My flexible shaft broke, why did this happen?

**A.** There can be several reasons for this. It is not uncommon for flexible shaft to break, but there are some things to consider to prevent this from happening:

- Always check that the shaft is in good condition, if it shows signs of wear cut it down using an angle grinder or shaft cutter (see page 21).
- Is it dry? The shaft is covered in paraffin oil before being placed inside the outer casing and this process will need to be repeated from time to time to protect the shaft (see page 19).
- Was the shaft operating clockwise? You should always check that the rotational direction of the shaft is clockwise *before* placing inside the drain. Operating anti-clockwise will quickly unravel the shaft and cause it to break.
- Do not push the cutter too much when re-instating, this increases the torque and can cause the shaft to snap.

### Q. Why did my lateral cutter fall / snap-off inside the drain?

**A.** This doesn't happen very often, but to prevent it you should always check the following:

- Are the screws securely tightened? You must double check all screws before placing the cutter inside the drain.
- Is the cutter operating clockwise? Always check this before placing your cutter inside the drain; operating anti-clockwise can cause the shaft to snap quickly.

### Q. When I opened the connection my cutter damaged the opposite lined wall / pipe - why?

**A.** This should not happen if you follow these steps:

- Always practice with your new cutter before taking it to the worksite. You will learn to *feel* and *hear* the difference when the cutter makes the opening, and stop immediately.
- Put the cutter to the connection without turning the power on. Now place bright tape around the shaft at the mouth of the pipe. Now you know how far you can safely go.

### Q. How do I use a camera with my Picote lateral cutter?

- A.**
- If you are operating a Smart Cutter™ you can push the camera in behind it, being careful not to get too close to the rotating parts.
  - For an additional visual, a camera could be put into the main line pipe.

### Q. My Smart Cutter™ is too big to fit through all the bends in the job I am working on, what should I do?

**A.** This is something that can happen, and all you need to do is simply choose the next size down hub and make a smaller Smart Cutter™. See the hub table for further information on hub capabilities (page 15).

### Q. Can I use my lateral cutter anti-clockwise?

**A.** It is **not** possible to use the Smart Cutter™ or the Special Drill Head anti-clockwise when making the opening cut as this will quickly unravel the shaft and dull the cutting head. The Smart Cutter™ may be used anti-clockwise for **grinding only** for a short period of time if absolutely necessary. This will result in the structural weakening of the shaft and is not recommended. Please note that rotational direction also affects the positioning of the Smart Cutter™ within the branch section.

Always check the rotational direction **before** placing your cutter inside the drain.



# Warranty information

In the first instance please contact your reseller or salesperson.

## 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 for 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 included the Products (such as brushes) 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 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.

For full warranty policy, please contact [sales@picotesolutions.com](mailto:sales@picotesolutions.com).







## INNOVATIVE THINKING

In Finland, Picote is a very well established contracting company, successfully rehabilitating thousands of drains and sewer pipes with trenchless methods since 2008.

By focusing on in-house research and development, our company also offers a growing range of unique, patented and patent-pending products, which are now available to the international market.

These resourceful tools and machinery have been devised and perfected as a direct result of feedback and evaluation from worksites.

As a contractor ourselves, we know that durability, reliability and safety do matter at the work site, and that value for money is also a priority. That's why at Picote we are proud of our innovative, quality products.

*Designed for professionals, by professionals.*

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