



# Instructions

## DC SUPER FLEX

Before you take this equipment in enterprise, **you must read** these operating instructions very carefully.



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# 1.0 Manufacturer

**Dancutter A/S**

Livøvej 1  
DK-8800 Viborg

Tel: +45 9651 2150  
info@dancutter.dk

CVR/VAT no.: 26672678

**Technical support**

If you experience problems with the cutter or if you have any technical questions, please write to **support@dancutter.dk**

**Order**

If you need spare parts or cutting heads, please write to **order@dancutter.dk**

# 1.1 Distributor

**RSM LINING SUPPLIES GLOBAL LIMITED**

Coalpit Road,  
Denaby Main Industrail Estate,  
Doncaster, South Yorkshire,  
England, UK,  
DN12 4LH

Telephone: +44 (0)1709 864 271  
Email: sales@rsm-web.com

**website: rsm-web.com**

**Technical support**

If you experience problems with the cutter or if you have any technical questions, please write to **sales@rsm-web.com**

**Order**

If you need spare parts or cutting heads, please write to **sales@rsm-web.com**

# 1.2 Authorised Representative

**Mini-Cam Limited,**

Mini-Cam Limited  
Unit 33, Ravenscraig Road,  
Little Hulton, Salford,  
M38 9PU

## 2.0 Model Type

### Identification:

System Type: Mobile cutter unit  
Model: DC SUPER FLEX 25 OR 50 METERS

## 3.0 Specifications



EXTERNAL DIAMETER: 50 MM



GRINDER: 15000 RPM



AIR PRESSURE:  
10 BAR - 145 PSI



WEIGHT:  
25 M: 58 KG  
50 M: 71 KG



AIR SUPPLY: 650 L/MIN



POWER SUPPLY:  
110 / 240 VAC - LN 



L: 1000 MM - B: 550 MM -  
H: 1030 MM



SUPPLY HOSE:  
25 M OR 50 M



STAINLESS STEEL ALLOY  
AND ALUMINIUM

## 4.0 Safety Instructions


- Only start the Grinder when the cutter is in the pipeline.
- Remove the air connection when the cutter is rolled back onto the rack.
- Remove the air connection before refilling with washer fluid.
- Screws, adapter, cutting tools, etc. must be inspected weekly for wear and damage and must be replaced or tightened if necessary.
- Place a refrigeration dryer between the compressor and the cutter system.
- If the rack is to be placed on its side, the oil lubricator glass **MUST** be removed (7.1.1).

In the event of new product developments, Dancutter reserves the right to change the technical description without advance notice.  
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## 5.0 Quickguide

**Use an in-/external  
compressed air  
aftercooler.**

**Maximum water  
content per m<sup>3</sup>  
supply air: 20g/m<sup>3</sup>,  
(0,7 ounce/35 cfm)**


**Always ground the  
Equipment.** 



# Congratulations on your new DC SUPER FLEX

To get the most satisfaction from your cutter, it is important that you spend two minutes learning how to operate and maintain it.

Use an in-/external compressed air aftercooler.  
Maximum water content per m<sup>3</sup> supply air:  
20g/m<sup>3</sup>, (0,7 ounce/35 cfm)

 AIR REQUIREMENT  
650 L/MIN, (22 CFM)

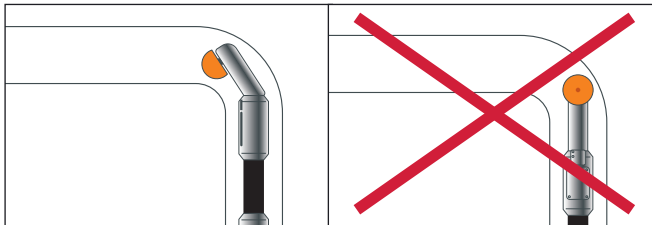
 AIR PREASSURE  
10 BAR - 145 PSI

 POWER SUPPLY  
110/240 VAC - LN 

For more information, read the attached user manual.

## Forcing a 90° bend

- Turn the cutter in the same direction as the bend.
- Raise the cutter arm.
- Push the cutter through.
- Lower the cutter arm.
- In the case of several bends, make a note and put tape on the hose, so you know which way it shall face.



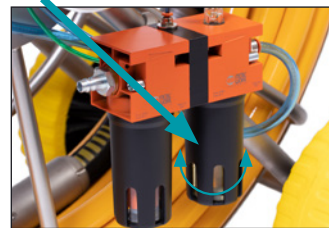
## As needed

- Lubricate the drum shaft with grease in the grease nipple.
- Check the air filter (part number P57106) in the water separator to be kept clean and changed as needed.

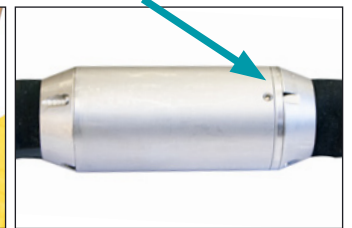
## Before use

- Check that there is oil in the lubricating unit.
- **NEVER** bend the cutter outside of the pipe.
- The cutter operator is responsible for ensuring that the cutter is handled safely, in and outside the pipe.
- The forward section must **ALWAYS** be closed together during transport in and outside the pipe.
- Only use **PURE AIR - WASHER FLUID W/ALCOHOL** in the container for camera cleaning.

Check the oil



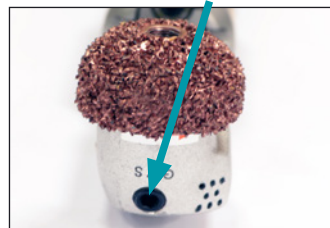
The forward section must **ALWAYS** be closed together during transport in and outside the pipe



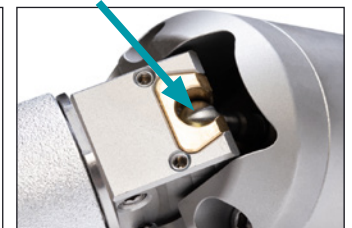
## After use

- Clean the outside of the cutter with a water hose (not a high-pressure cleaner) or compressed air.
- Clean the forward/back drive with compressed air. Fully extend the unit and clean it in traces and edges with paper and cloth. (possibly with a small screwdriver in the tracks).
- Raise the arm all the way and clean the hollow space behind the tilt unit using compressed air. Next, lubricate the piston with oil and re-lower the arm.
- Unscrew the Unbrako screw in the end of the Grinder (GRS), fill the screw hole with blue grease and then re-attach.

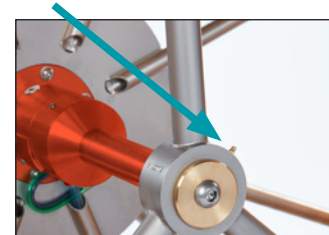
The screw hole for grease (GRS)



Lubricate the piston



Grease in the grease nipple



Air filter



## 5.1 Checklist

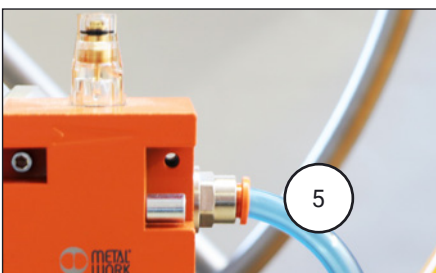
### AIR

- 1 Connect an air supply to the air-processing system - 10 bar and 650 l/min.
- 2 A refrigeration dryer must be used with the compressor.
- 3 Maximum moisture content per m<sup>3</sup> of supply air: 20 g/m<sup>3</sup>.



### OIL

- 1 Add pneumatic oil.
- 2 Check that the oil is clean and that its colour is clear. Change the oil if it becomes cloudy.
- 3 If the system has to be laid down during transport, unscrew the oil-lubricator glass to prevent oil from entering the cleansing tank.
- 4 Adjust the adjustment screw once the air sander has been started. One drop of oil should come out every 8–10 sec.
- 5 Once the sander has started, it should be possible to see an oil film flow into the 10 mm hose.



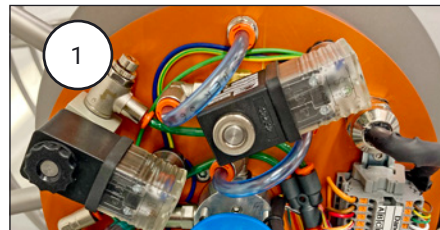
### CAMERA CLEANER

- 1 Clean the camera using either pure air or washer fluid w/alcohol. It is important that whatever fluid is used can evaporate from the camera lens.
- 2 When adding liquid to the tank, the system/tank must be de-pressurised.



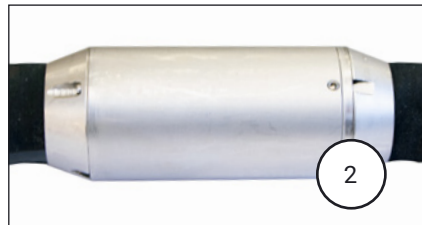
### RAISING/LOWERING THE ARM

- 1 It is possible to regulate the speed of the arm by rotating the needle valve; the adjustment works only in the 'UP' position. The arm will lower under its own power. Adjust the arm so that it rises a bit slower than it falls.



### FORWARD/BACK DRIVE

- 1 Use the forward/back drive only when cutting.
- 2 The forward/back drive must **ALWAYS** be retracted to a closed position during transport, in a tube and outside a tube.




### CUTTER

- 1 Do **NOT** bend the cutter more than 80°.



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 PIPE DIMENSION	DIA. 75 - 150 MM, 3" - 6"	 FOR- /BACKWARDS	60 MM - 2,4"
 SUPPLY HOSE	25 OR 50 METRES, 82 OR 164 FT	 ROTATION	360° CONTINUOUSLY
 FLEXIBLE	45° - 90°	 GRINDS, MILLS AND CUTTS	PVC, LINER, CONCRETE, IRON, CAST IRON, STAINLESS STEEL

## 6.0 DC SUPER FLEX

### Dancutter's Extremely Flexible Cutter

DC SUPER FLEX is Dancutter's extremely flexible cutter. It can move through several 90-degree bends in a 100 mm pipe and works effortlessly whether the pipe is straight or has bends. The DC SUPER FLEX is ideal for reopening laterals or removing hard deposits like concrete from pipelines. When you are cutting, milling and grinding in pipes from 75 - 150 mm / 3" - 6",

DC SUPER FLEX is a powerful solution, no matter if the pipe is made of PVC, cement, concrete, cast iron or steel.

The cutters are 100% Made in Denmark and, at Dancutter, we take pride in developing systems to meet the exact needs of our customers. If you have special requirements, please don't hesitate to contact us about a customized solution.



### Contact Information

#### Dancutter A/S

Livøvej 1  
DK-8800 Viborg

Tel: +45 9651 2150  
info@dancutter.dk  
dancutter.com

#### Technical support

If you experience problems with the cutter or if you have any technical questions, please write to [support@dancutter.dk](mailto:support@dancutter.dk)

#### Order

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### Highlights

- Extremely flexible in 45° and 90° bends
- 360°-degree continuous rotation
- High-quality stainless-steel alloy
- 12" colour display
- Cuts, grinds, and mills in all materials
- User friendly
- Precise control
- Toolbox and centring tool with brushes are standard accessories
- 100% made in Denmark

### Technical data

- Pipe diameter: 75 - 150 mm / 3" - 6" in.
- DC SUPER FLEX can be operated by just one person.
- The DC SUPER FLEX comes with either a 25-metre or a 50-metre hose.
- The control unit features inlet and outlet sockets for connecting a video recorder, computer, external camera, or FPV headset (optional accessory).
- 12" colour display
- Spray nozzle for cleaning the camera
- Training and Service







### Standard and extra accessories for DC SUPER FLEX

We offer a versatile range of accessories and spare parts for your Dancutter solutions.

Get an overview on [www.dancutter.com](http://www.dancutter.com)



### Specifications

 AIR SUPPLY	650 L/MIN, 22 CFM	 POWER SUPPLY	110 / 240 VAC - LN 
 GRINDER	15000 RPM	 WEIGHT	25 M: 58 KG, 128 LB 50 M: 71 KG, 156.5 LB
 AIR PRESSURE	10 BAR, 145 PSI	 STAINLESS-STEEL FRAME	L: 1000 MM - W: 500 MM - H: 1030 MM

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## 7.0 User instructions

Place the hose reel where the work is to be done.  
Connect the accompanying supply cable to 110/230 VAC and to the control unit's outlet. Similarly, connect the orange signal cable on the hose reel to the control unit.



Make sure that both tank ball valves are closed.

CLOSED



Now, connect compressed air from the compressor to the hose reel's combination water separator/oil lubrication unit. (7.1.1: "3").

We advise having a refrigerated dryer mounted on the compressor at all times to minimise moisture content so it never exceeds 20 g/m<sup>3</sup>.

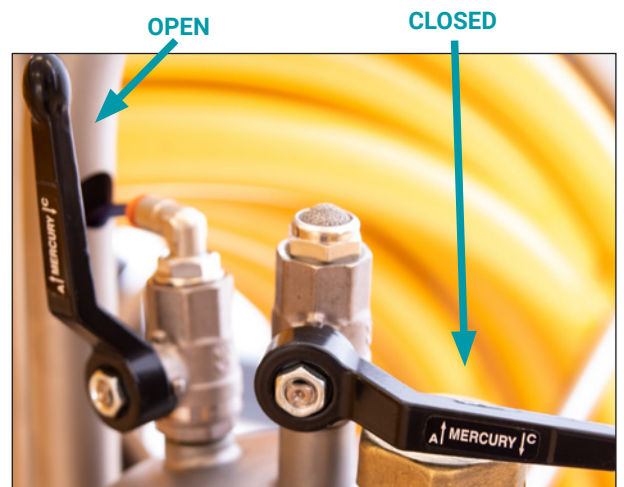


Now feed the cutter into the pipeline where it will work.

**Try out the cutter before feeding it into the pipe!**



Now open the ball valves supplying air to the tank.



Open the lid of the control unit and loosen the emergency stop button. Turn on the camera light, if necessary.



**Always ground the Equipment.**

When the grinder is used in dry pipes, a lot of static electricity can be built up. To ensure this does not damage people or sensitive electronic items such as the camera, make sure to ground the power connection.

**Try out the cutter before feeding it into the pipe!****The cutter is now ready to use.**

Now feed the cutter into the pipeline where it will work. If the cutter needs to pass through bends to reach the work site, follow the feeding process on the monitor/control unit so it is possible to lift/swivel the cutter arm when it reaches the bend, which eases the lead-in process. Remember to re-lower the cutter arm after it has passed through the bend.

Switch on the cutter on the control unit and let it run for a while before starting the task; slowly lift the grinder by pulling the joystick towards you (7.5: "12") so the cutting head hits the work area.

**ALWAYS** retract the forward/back drive section before moving from one position to another in a pipeline.  
(7.5: "1")

For branch line openings, it is important to process a wide area around the branch line opening before the cutting head breaks through the lining or pipe, because doing this will minimise the risk of the cutting head getting stuck. This is done by using the cutter's built-in forward/back drive (7.5: "1") and the rotation function. (7.5: "12")

Reduce pressure on the cutter just before the cutting head breaks through the lining or pipe.

The control unit has built-in WiFi for using a FPV headset (useful in bright sunshine).

Connect an extension cable (available in lengths of 6 and 15 metres) between the hose reel and control unit .



After completing a task, refer to the service and maintenance instructions in section 8.0.



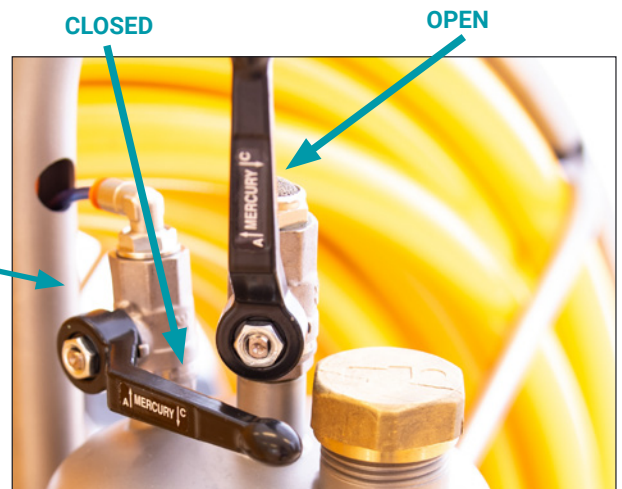
Disconnect the air supply.

**REMOVE SUPPLY HOSE**



Make sure the tank is depressurised.

**POSITION BALL VALVES AS SHOWN**



After use, place the cutter in the hose reel so that the grinder is vertical, so that any moisture formation can drain out of the grinder and into the hose.



Disconnect the two plugs on the back of the control unit and screw on the caps on the cables and control unit.



Close the control unit and hang it back on the hose reel.





## 7.1 Rack

1. Filling spout for washer fluid
2. Camera cleaner tank
3. Cover for sluice and slip ring
4. Air processing system
5. Base plate



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## 7.1.1 Water separator and oil lubricator

Fill oil before using the cutter. **REMEMBER**, replenishing the oil when the top of the oil can be seen in the glass (14.5). It is important that the glass does not run out of oil, as this will damage the Grinder and impair its performance.

Only use pneumatic oil (Part number: DCHY29307)

The filter (Part number P57106) in the water separator (14.4) must be changed as necessary. In case of problems with the air supply, clean the filter if necessary.

The mist lubricator must not be adjusted, as this has been configured at the factory. The mist lubricator must be kept upright during transport. If the rack is placed on its side, the glass must be removed to prevent oil flowing into the camera tank.

**DURING** transport with the device, always close the tap at the air outlet for the camera tank.



- |  |   |
|--|---|
| 1. Air outlet for camera cleaner tank                                    | 5. Adjusting screw for oil lubricator (preset at the factory)         |
| 2. Automatic water separator with air filter cartridge (item no. P57106) | 6. Air outlet for sluice/cutter                                       |
| 3. Air inlet from compressor   | 7. Automatic oil lubricator   |
| 4. Automatic water separator   | 8. Oil tank (remember to fill with pneumatic oil, item no. DCHY29307) |

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## 7.1.2 Camera cleaner tank

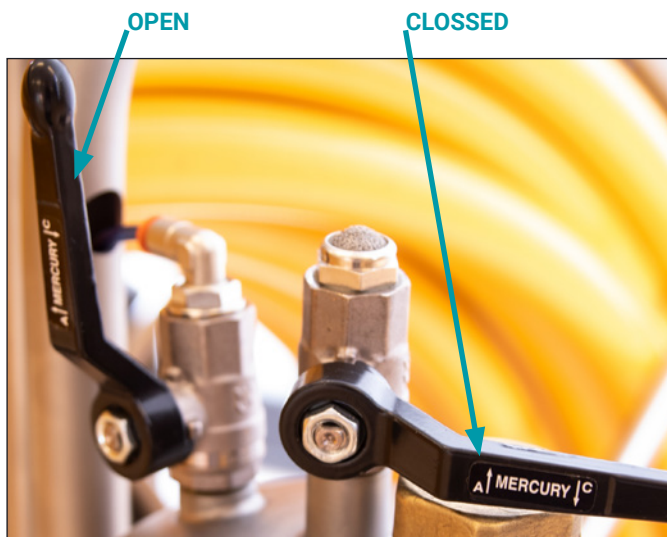
Working in a pipeline can dirty the cutter camera, impairing the quality of the images on the control unit monitor or FPV head-set and making the work more difficult. The cutter is equipped with a spray nozzle, which makes it easy to clean the camera while working.

**REMEMBER** to add washer fluid before using the cutter if you want to use fluid to clean the camera. It is also beneficial to just use dry air. “Empty tank for a dry task” – “Wet tank for a wet task”.

**IMPORTANT!** Disconnect the supply air from the air processing system and depressurise the tank before adding washer fluid.

This is why it is **IMPORTANT** to correctly position the two ball valves for the camera cleaner tank.

The illustration below shows how the two ball valves must be positioned for operating and for adding washer fluid.



### Position for operating the cutter

Before starting to work, set the two ball valves so that the supply of air to the tank is opened and the ventilation is closed.

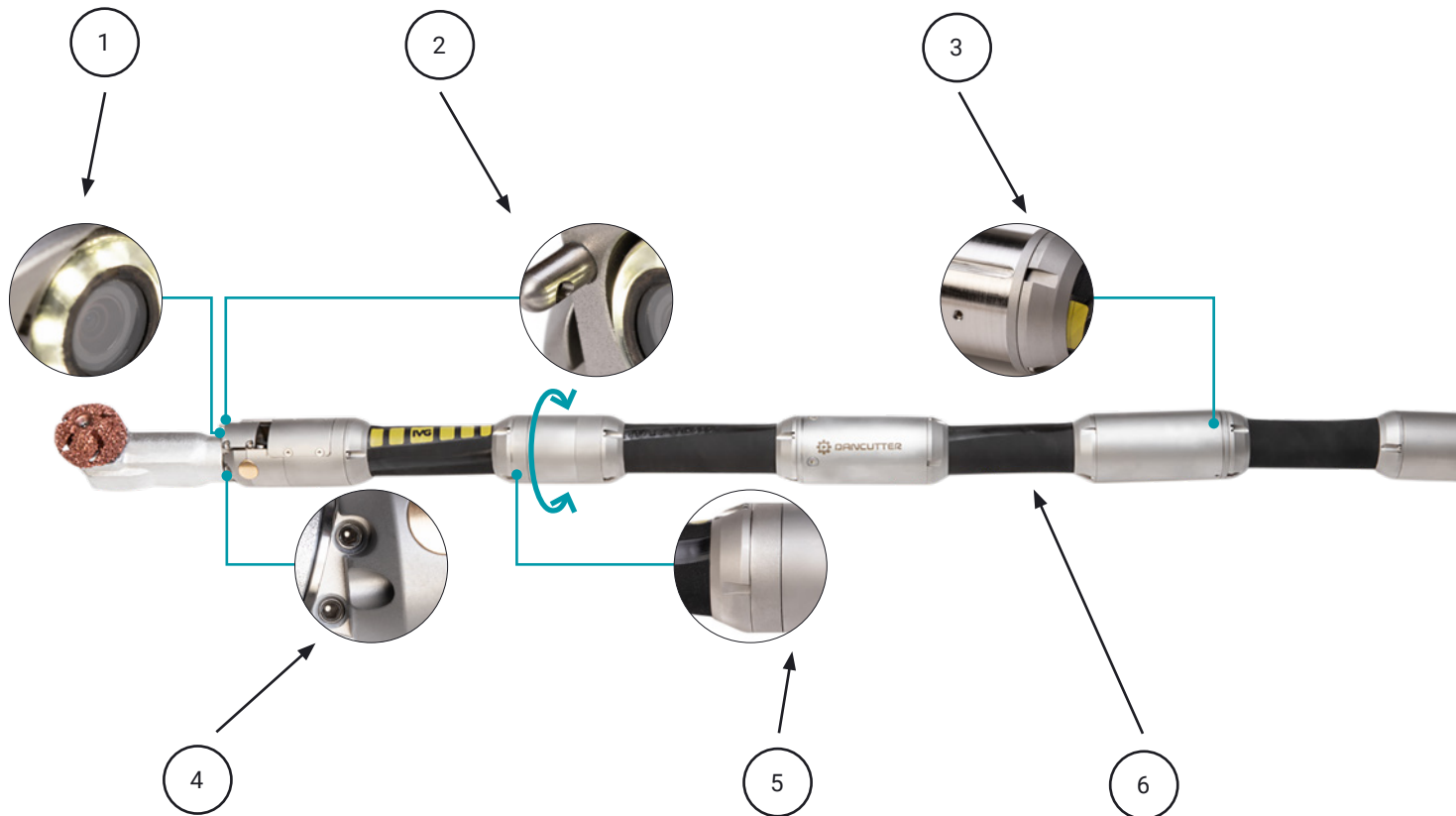


### Position for adding washer fluid







Set the ball valves in the opposite positions. Close the valve supplying the tank with compressed air and open the valve for venting the tank. Completely empty the tank of air before dismantling the brass lid (using a suitable tool). Then add washer fluid.

## 7.2 Cutter

1. Camera
2. Camera spray nozzle
3. Forward/back drive section
4. Screws for grinder attachment
5. Rotation section: 360 degree rotation
6. Flex wire



### Specifications

 PIPE DIMENSIONS	DIA. 75 - 150 MM	 FORWARD/BACK DRIVE	60 MM - 2,4"
 SUPPLY HOSE	25 OR 50 METER	 ROTATION	360° CONTINUOUS
 FLEXIBLE	45° - 90° DEGREE	 GRINDING, MILLING AND CUTTING	PVC, LINER, CONCRETE, IRON, CAST IRON, STAINLESS STEEL

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## 7.2.1 Installation of centring tool set w/ brushes

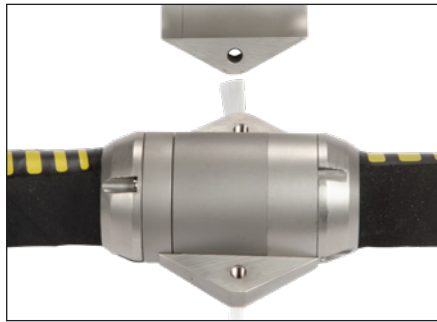
The hollow/recess on the individual half-globes in the centring tool set, must **ALWAYS** face towards the grinder. Were the spotfacings are tapped into the Half-Globes. This is especially

important for the unit mounted at the rotation point (8.4), as it would otherwise tighten and prevent the smooth rotation of the grinder.

### Installation of centring tool set



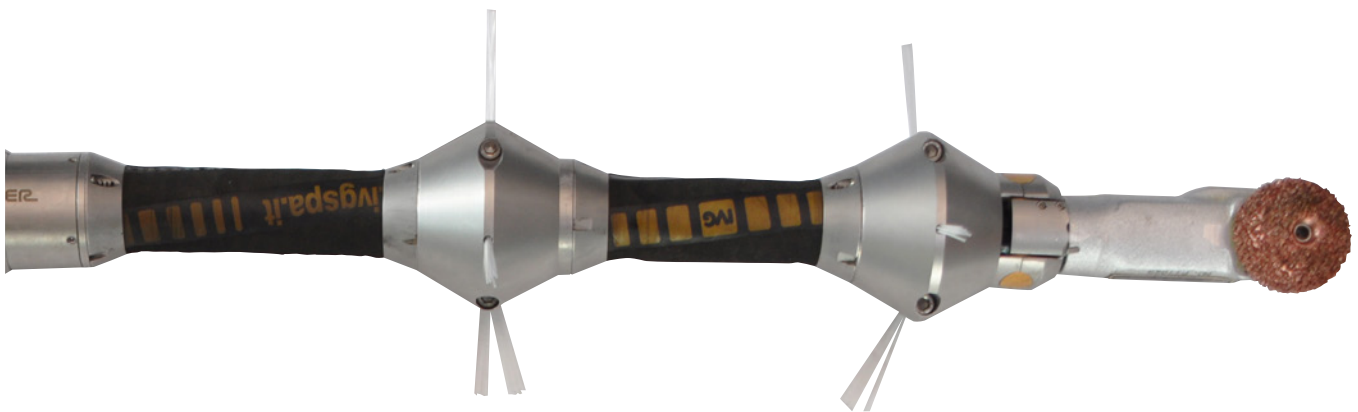
Position the spotfacings facing forwards.



The centring kit must be tightened so that the increase on the trailing edge of the individual places on the cutter is continued up the individual blocks.

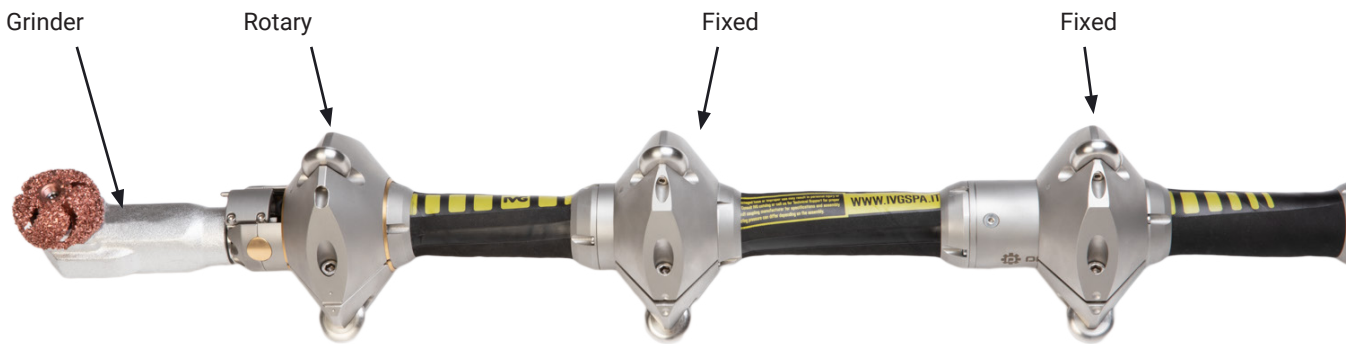


When operating in the downpipes, mount the supplied brushes into the holes on the individual blocks in the centring tool set.

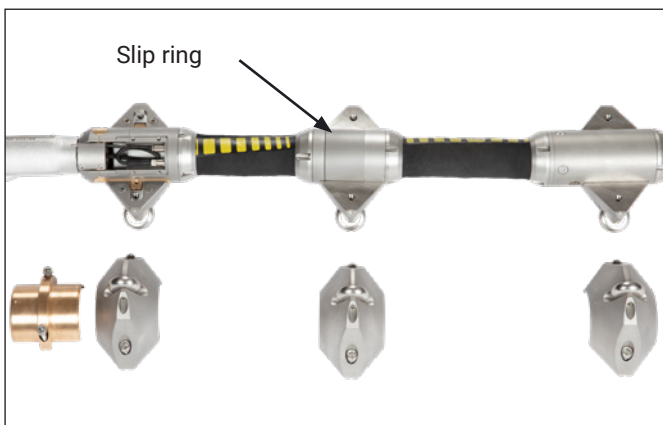




## 7.2.2 Installation of centring tool set w/ wheels



**IMPORTANT!** Remove the cover before installing the centring tool set.



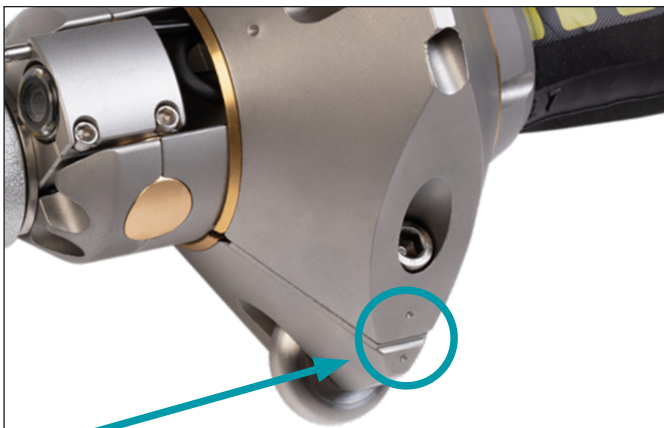
Place the cutter underneath the three centring rings so that the rotary centring ring is flush with the grinder.

**NOTE!** Place the middle centring ring so that the internal clearance allows the slip ring system to rotate.

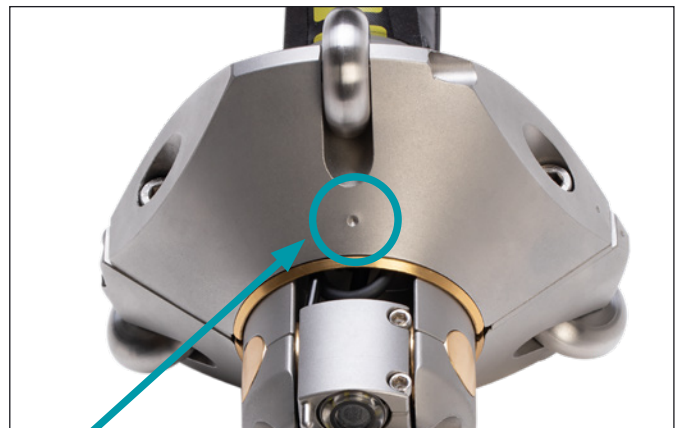
There is a spotfacing on the periphery of each part of the centring tool set. When installing, it is **VERY IMPORTANT** that the spotfacings are positioned one on top of the other.

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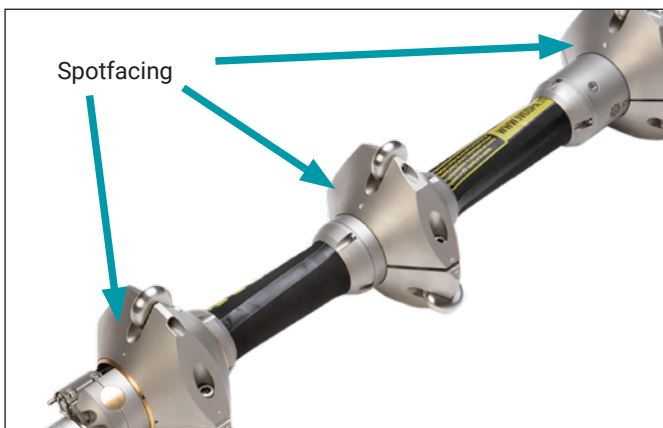




Position the spotfacings one on top of the other.



There is a spotfacing on each of the centring rings to indicate which side of the ring should face the grinder.



Position the spotfacings facing forwards.



## 7.3 Grinder

The cutter comes with a hose reelard DC SUPER FLEX Angle Grinder (SFAG).

Dancutter provides various other types of grinders, however, for different purposes and with different properties. These are illustrated below.



**DC SUPER FLEX Angle Grinder**  
- Standard fitted

Powerful motor covering most tasks:  
Ø75 - 150 mm pipe



**DC SUPER FLEX Straight Grinder**  
- Additional equipment

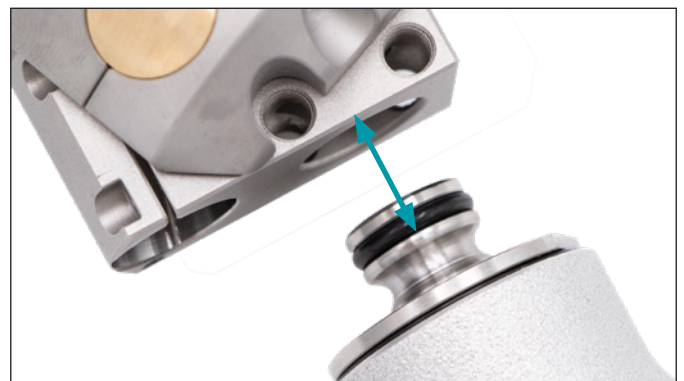
Ø75 - 150 mm pipe

### 7.3.1 Replacing the grinder

Raise the arm so that the 5 mm Allen key can be inserted and loosen the screw on both sides.

The grinder can then be pulled out and replaced.

Install the Grinder in reverse order.

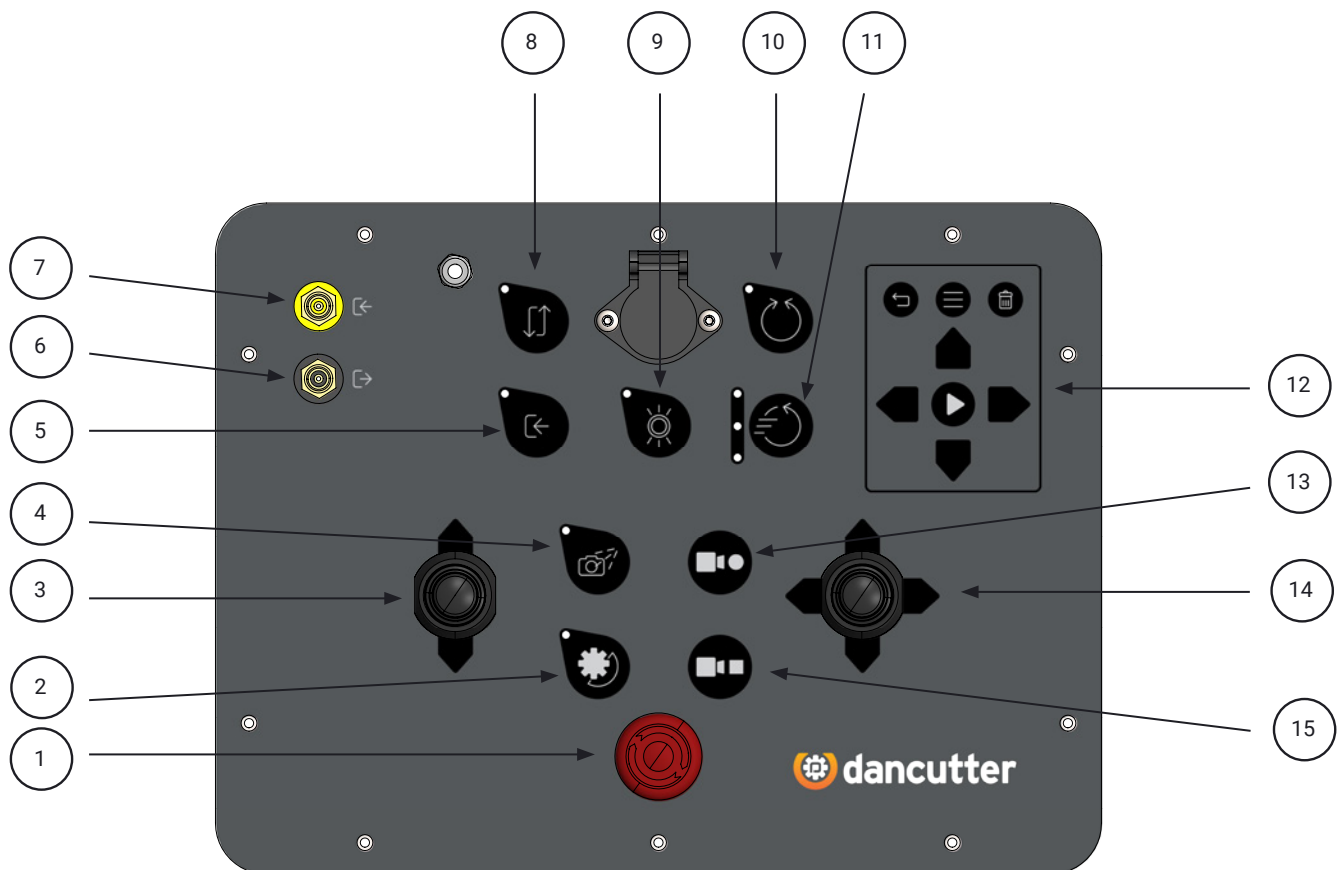


7.3.1

## 7.4 DC Control Unit 2.0

With the DC Control Unit 2.0 you can control your DC SUPER FLEX and DC MAXI FLEX. Attach the cable from the coiler and the power cable to the control unit and it will power up. Please protect your control unit from water as it is not waterproof when open. The following will describe the function of each button/joystick on the control unit.

- |                          |                             |                            |
|--------------------------|-----------------------------|----------------------------|
| 1. STOP                  | 6. VIDEO IN                 | 11. ROTATION SPEED         |
| 2. GRINDER               | 7. VIDEO OUT                | 12. PLAYBACK CONTROL PANEL |
| 3. LEFT JOYSTICK         | 8. REVERSE FORWARD/BACKWARD | 13. START RECORDING        |
| 4. CAMERA CLEAN          | 9. LIGHT                    | 14. RIGHT JOYSTICK         |
| 5. EXTERNAL VIDEO SOURCE | 10. REVERSE ROTATION        | 15. STOP RECORDING         |



L: 350MM - B: 300 MM -  
H: 150 MM



WEIGHT: 7 KG, 15.4 LB



DISPLAY: 12.1"

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# DC Control Unit 2.0



**GRINDER:** Press to start and stop the grinder. The grinder is on when the green light is on.



**STOP:** To halt all movement of the cutter, press this button. To return to the normal operating state, rotate the button. It is important to note that even after releasing the stop button, the grinder will remain inactive.



**CAMERA CLEAN:** To clean the camera lens, press the button briefly to dispense a small amount of sprinkler fluid or air. Alternatively, press and hold the button for 3 seconds to activate the sprinkler, which will remain on until the button is pressed again. You will know the camera cleaning function is active when the green light is on.



**LIGHT:** Press to turn the camera light on and off. The camera light is on when the green light is on.



**LEFT JOYSTICK:** Use this to operate the cutters forward/backward movement. How far the forward/backward section is extended is shown on the bar at the bottom of the screen.



**RIGHT JOYSTICK:** Use the up/down to raise and lower the grinder on the cutter. Use the right/left to rotate the cutter.



**ROTATION SPEED:** Press this button to adjust the rotation speed of the cutter in three levels. 1 light on: low speed. 2 lights on: medium speed. 3 lights on: high speed.



**START RECORDING:** Press to begin recording a video. It's important to ensure that a USB stick has been properly inserted into the corresponding USB socket, as the recording will be automatically saved to the stick. You will know that the control unit is recording when the "REC" indicator blinks in the lower left corner of the screen.



**STOP RECORDING:** Press to stop the recording.



**PLAY:** While in normal mode, press the PLAY button to take a snapshot of the screen. The snapshot is saved directly onto the USB stick. When you take a snapshot "SNAP" is displayed briefly on the screen.



**EXTERNAL VIDEO SOURCE:** Press this button to switch between video sources on the screen. When the light is off, the video feed is sourced from the camera built into the cutter. Conversely, when the light is on, the video feed is sourced from an external video source that has been connected to the "video in" socket on the control unit. Note, the settings for "reverse forward/backward" and "reverse rotation" are saved independently for each video source, and will automatically switch back to their saved state when the video source is changed back.



**VIDEO IN:** Use this if you want to display video from an external source on the control unit's screen.



**VIDEO OUT:** Use this if you want to display the video from the cutter on another screen.



**REVERSE FORWARD/BACKWARD:** Press this button to reverse the direction of the cutter's forward/backward movement when using the joystick. This feature is particularly useful when an external camera is being used to view the cutter from a different angle, making it easier and more intuitive to control. Note, the light will be illuminated when the forward/backward movement is reversed, indicating that the feature is currently active.



**REVERSE ROTATION:** Press this button to reverse the direction of the cutter's rotation when using the joystick. This feature is particularly useful when an external camera is being used to view the cutter from a different angle, as it can make controlling the cutter feel more intuitive and natural. Note, it's worth noting that the light will be illuminated when the rotation direction is reversed, indicating that the feature is currently active.



**PLAYBACK CONTROL PANEL:** This panel is used to control the playback function. You can playback videos and snapshots recorded with the control unit.



**MENU:** Press to enter the playback menu.



**RETURN:** Press to go back or to exit the playback menu.



**DELETE:** Press to delete video recordings or snapshots.



**PLAY:** Press to play/pause videos or to enter menus and folders.



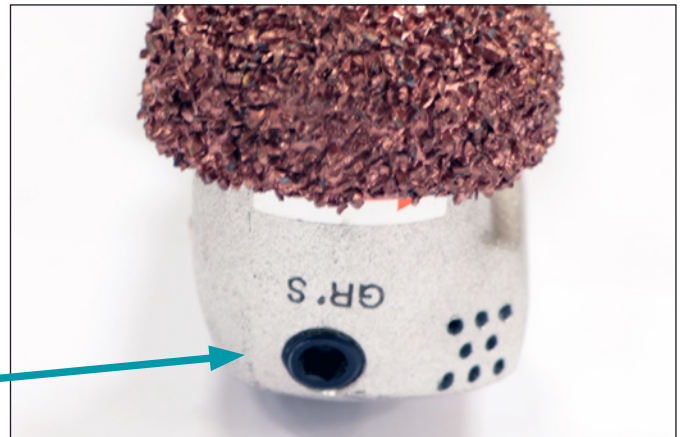
**ARROWS:** Use to navigate through menus, folders and files.

## 8.0 Service and maintenance

### 8.1 Grinder

- Clean the grinder with water or compressed air.
- Unscrew the hex screw in the end of the grinder (GRS), add a drop of blue grease to the screw hole and re-attach the screw. Once a week or as needed.
- After operating the grinder in a very damp environment or if it will be idle for an extended period of time, remove the grinder and drip oil into the coupling nipple and evenly distribute the oil in the motor by blowing it with an air gun. This will displace any water/moisture.

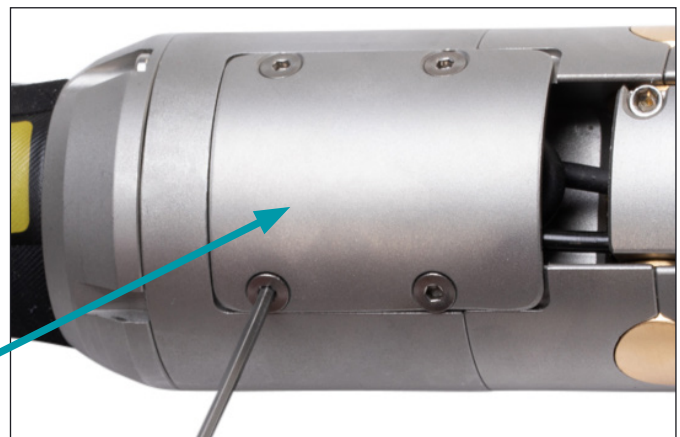
BLUE GREASE (F85001)



### 8.2 Clean underneath cover

- Clean with compressed air underneath the cover next to the camera outlet.
- Dismantle the cover if necessary.

DISMANTLE THE COVER



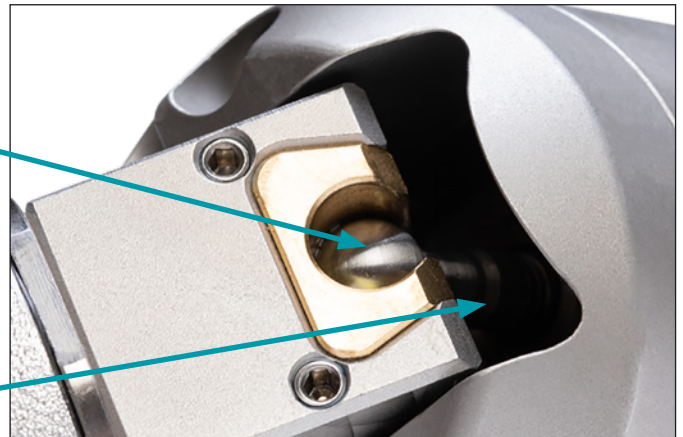


## 8.3 Clean behind arm/swivel support

- Raise the arm all the way up and clean the space behind the swivel support with compressed air. Next, lubricate the piston and swivel support, insert with oil and re-lower the arm.
- Clean with compressed air under the lid by the camera outlet.

**LUBRICATE**

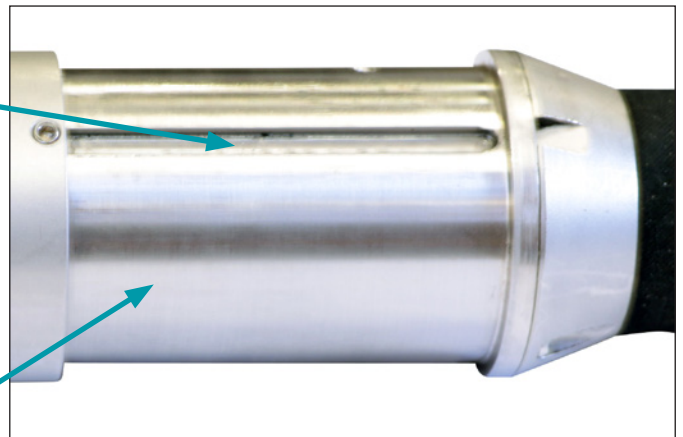
**CLEAN WITH COMPRESSED AIR**



## 8.4 Clean the forward/back drive

- Clean the forward/back drive with compressed air. Fully extend the unit and clean its tracks and edges.
- (POSSIBLY WITH A SMALL SCREWDRIVER IN THE TRACKS).**
- After cleaning, do **NOT** lubricate the forward/back drive unit with oil or grease, as grime and dirt will stick to it and impede its movement. If the cutter gets scratched and becomes leaky, water will be able to penetrate the section from the outside. Therefore, keep this section **CLOSED** whenever the cutter is being pushed forward or backwards in the pipeline.

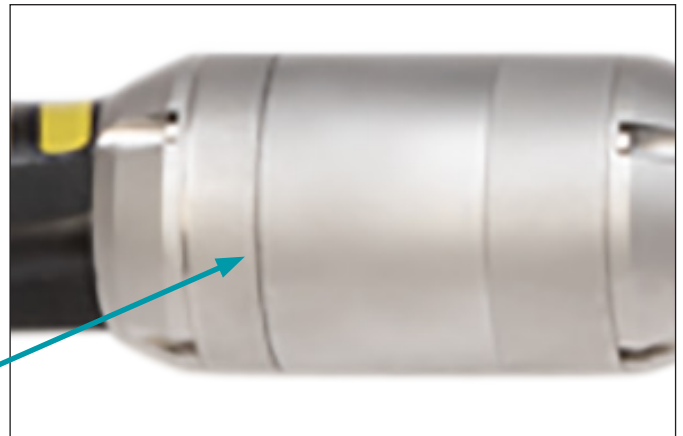
**CLEAN WITH COMPRESSED AIR AND DRY WITH PAPER AND CLOTH**



## 8.5 Clean the rotation function

- Remove sand and dirt by blowing compressed air into the thin groove.
- Continuing to use the rotation function if this groove is dirty will needlessly overload the rotation motor. It can also cause a defect in the rotation motor or damage components in the control unit.

CLEAN THE GROOVE WITH COMPRESSED AIR



## 8.6 Maintaining the control unit

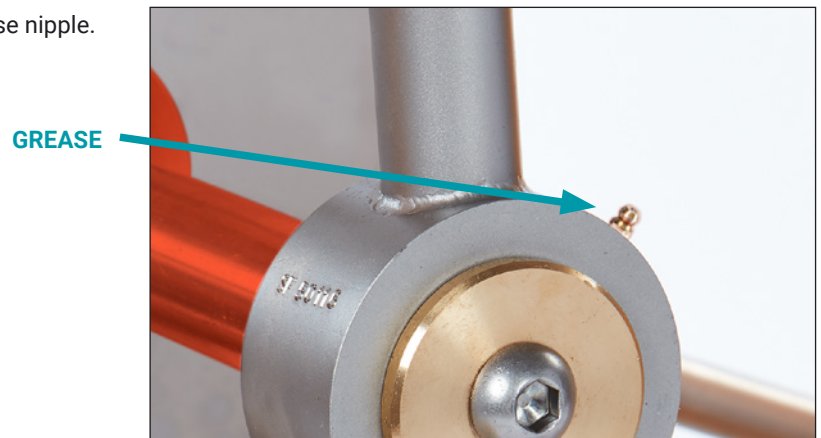
- Avoid getting water/moisture on the control unit, as it is not watertight. Close it after use and hang it on the hose reel to protect the screen and switches.
- Always replace caps on **CABLES AND CONTROL UNIT** after use to protect the power outlets.
- Always hang the control unit in place after use.



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## 8.7 Drum shaft

- Lubricate the drum shaft with grease in the grease nipple. If used daily, do this roughly twice a year.



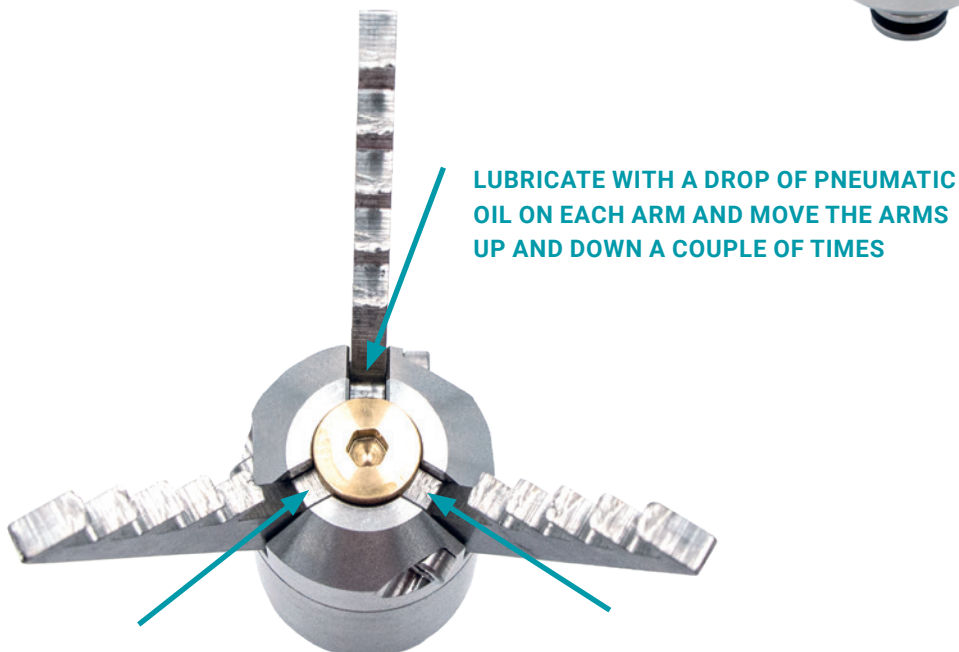
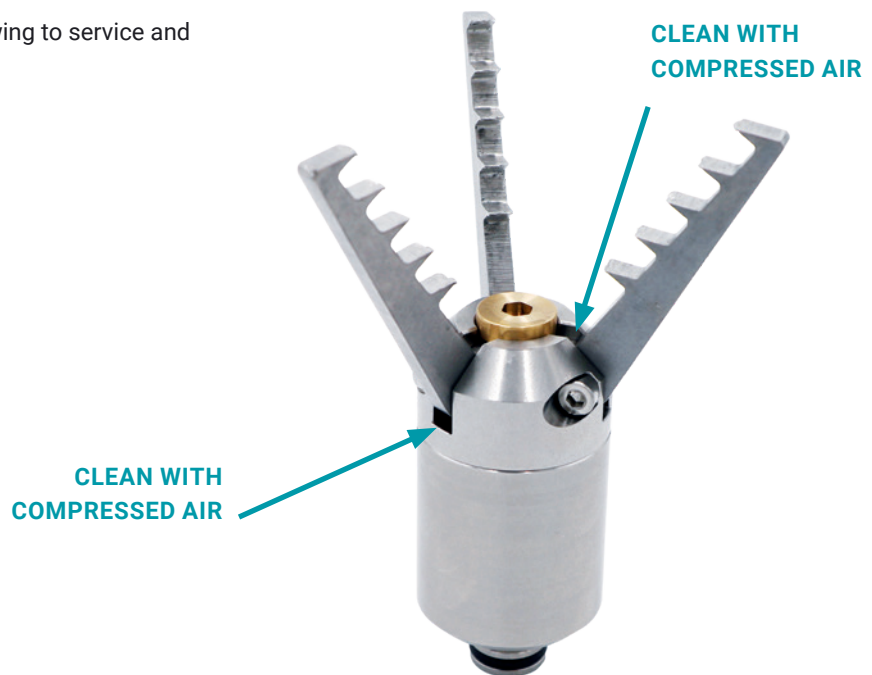
## 8.8 Water filter

- Clean the water-filter insert as needed. (F80546)



## 8.9 Grabber

- We recommend that you do the following to service and maintain the grabber daily after use.



## 8.9 Service overview

Service overview			
Part - components - service	Daily	Weekly	Other
Cleaning the cutter.	x		
Check pneumatic oil. See 7.1.1 (5). Add oil as needed. See 7.1.1 (8).	x		
Clean and lubricate the piston and swivel support unit insert. See 8.3.	x		
Lubricate the Grinder. See 8.1.	x	x	
Visually inspect the cutter. Inspect screws, adapter, cutting tools, etc., for wear and damage and replace or tighten them if necessary.	x		
Lubricate with grease in the grease nipple. See 8.7 (once or twice a year)			As required
Add washer fluid. See 7.1.2			As required
Replace air filter. See 7.1.1 (4)			As required
Cleaning the grabber	x		
Lubricate grabber with a drop of pneumatic oil on each arm and move the arms up and down a couple times	x		

## 9.0 Cutting tools

### 9.1 Tools for cutting PVC & LINER

The standard cutter is equipped with an AG 50 air engine, where air is blown forward to blow dust away from the camera.

The cutting tool is replaced by using the Allen key supplied. It may be necessary to clean the bolt in the grin ding motor, by which the cone milling tool is secured first.

Dancutter recommends using the following cutter heads for re-opening of laterals.



DK2020-18



DK2629-16



DK3015-16



DK3713-16



DK4623-16



DJ1938-14

#### Specials tools for DK3713-16



Special tool DK3713-V - DK3713-B

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## 9.2 Tools for cutting CONCRETE

Dancutter recommends using the following diamond heads for concrete.



DKA1022



DD4623



DD3015

## 9.3 Tools for cutting STEEL

Dancutter recommends using the following cutting discs for iron/steel

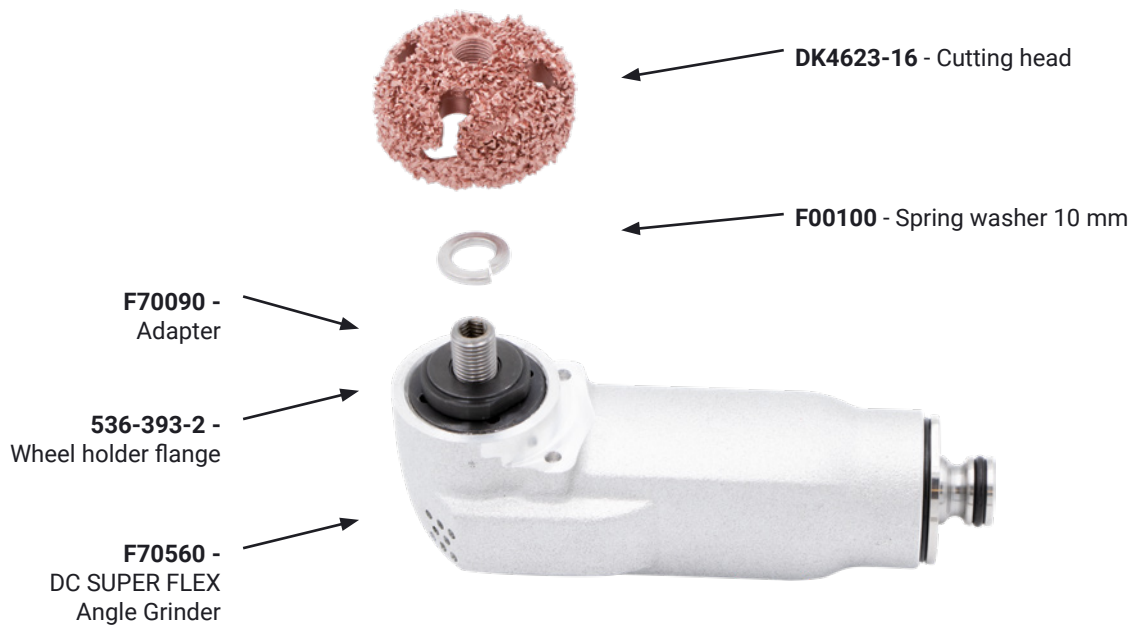


DD9008

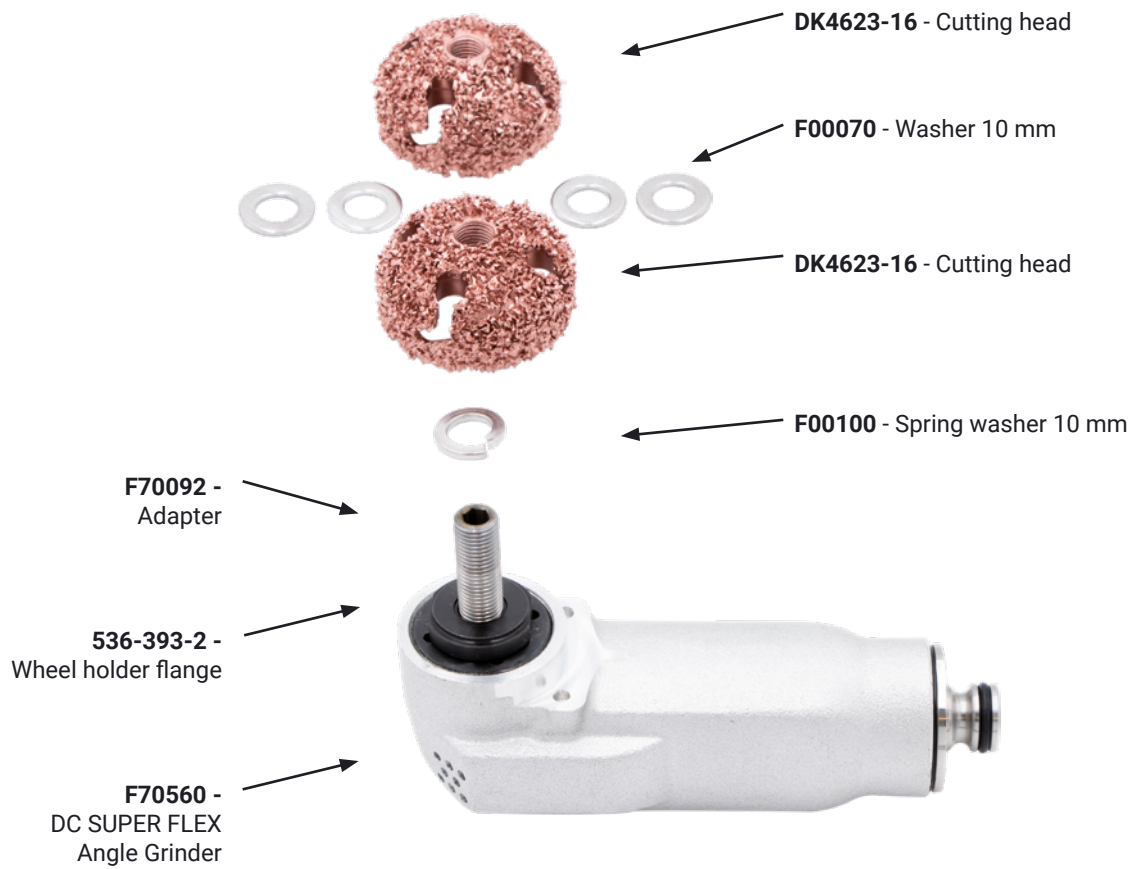


DD9023

## 9.4 Attachment instructions for cutting tools

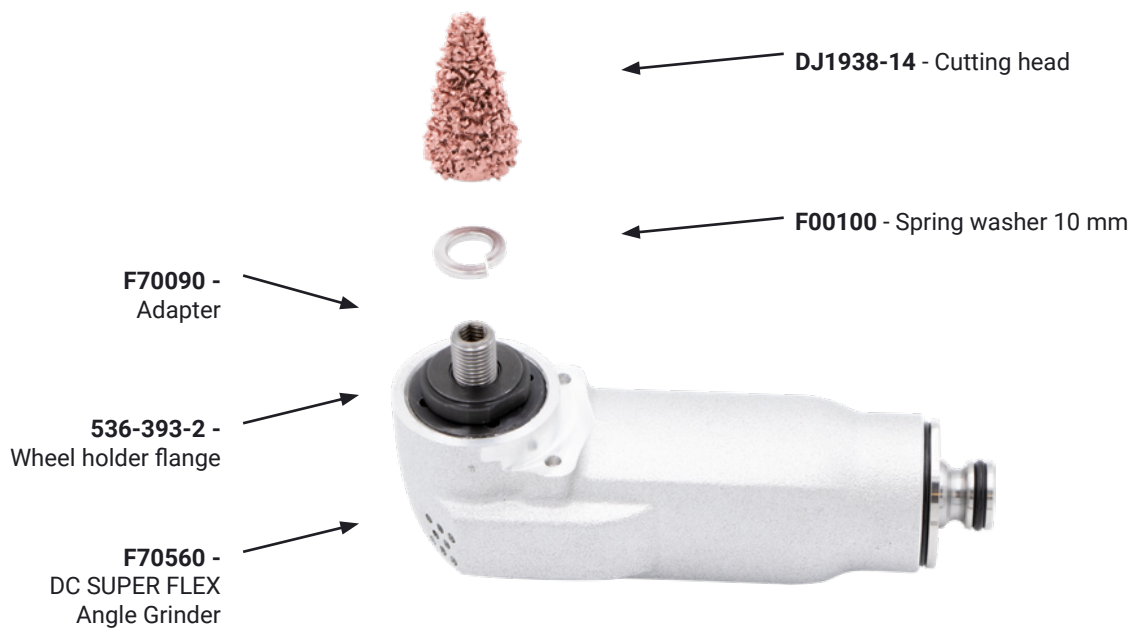


## 9.4 Attachment instructions for cutting tools

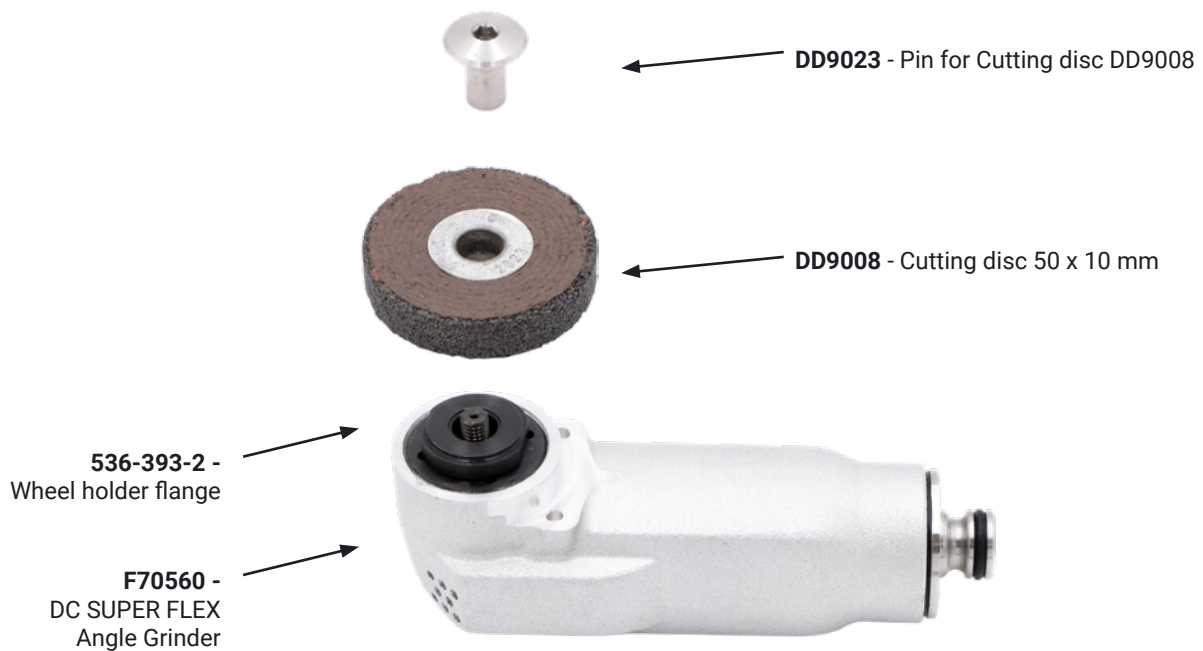


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## 9.4 Attachment instructions for cutting tools

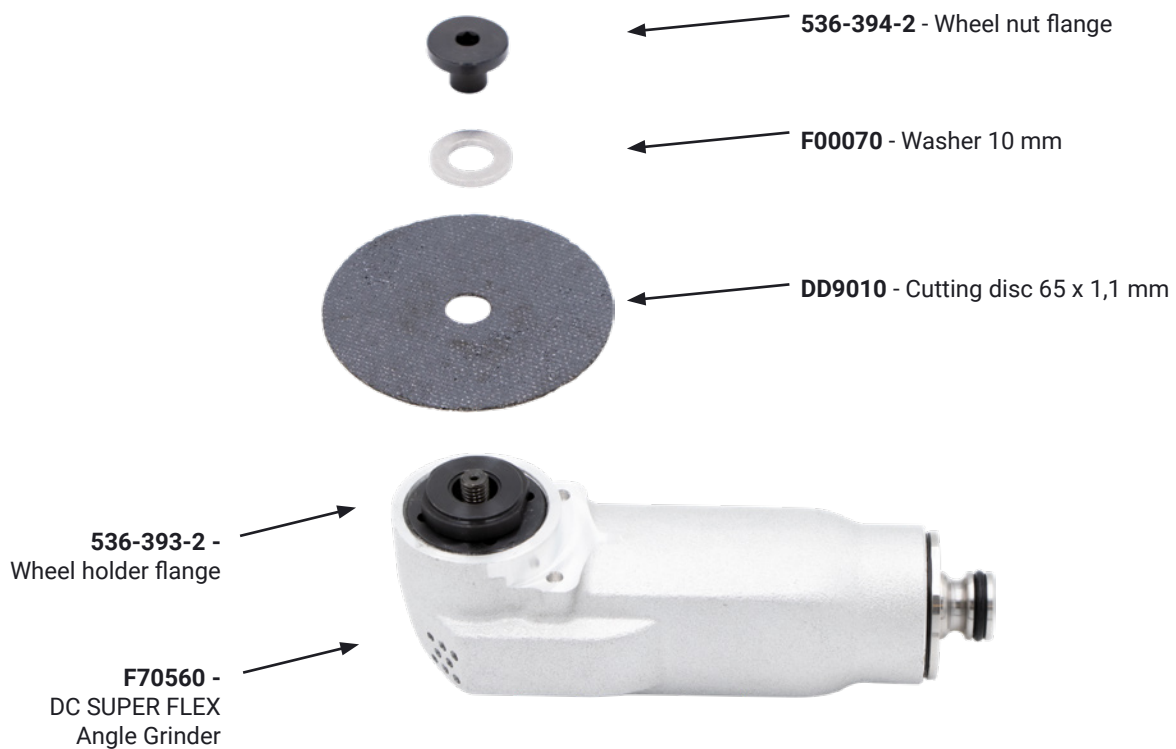


## 9.4 Attachment instructions for cutting tools





## 9.4 Attachment instructions for cutting tools



## 9.4 Attachment instructions for cutting tools



# 10.0 Quickguide FPV headset

## First time setup

- Turn the headset on with the POWER button.
- Make sure that the control unit on the cutter is turned on.
- Press and hold the button SCAN for 1-2 seconds while the headset finds the signal from the control unit.
- The velcro straps on the headset can be adjusted to fit your size.
- To charge the headset battery use the included micro usb cable.

