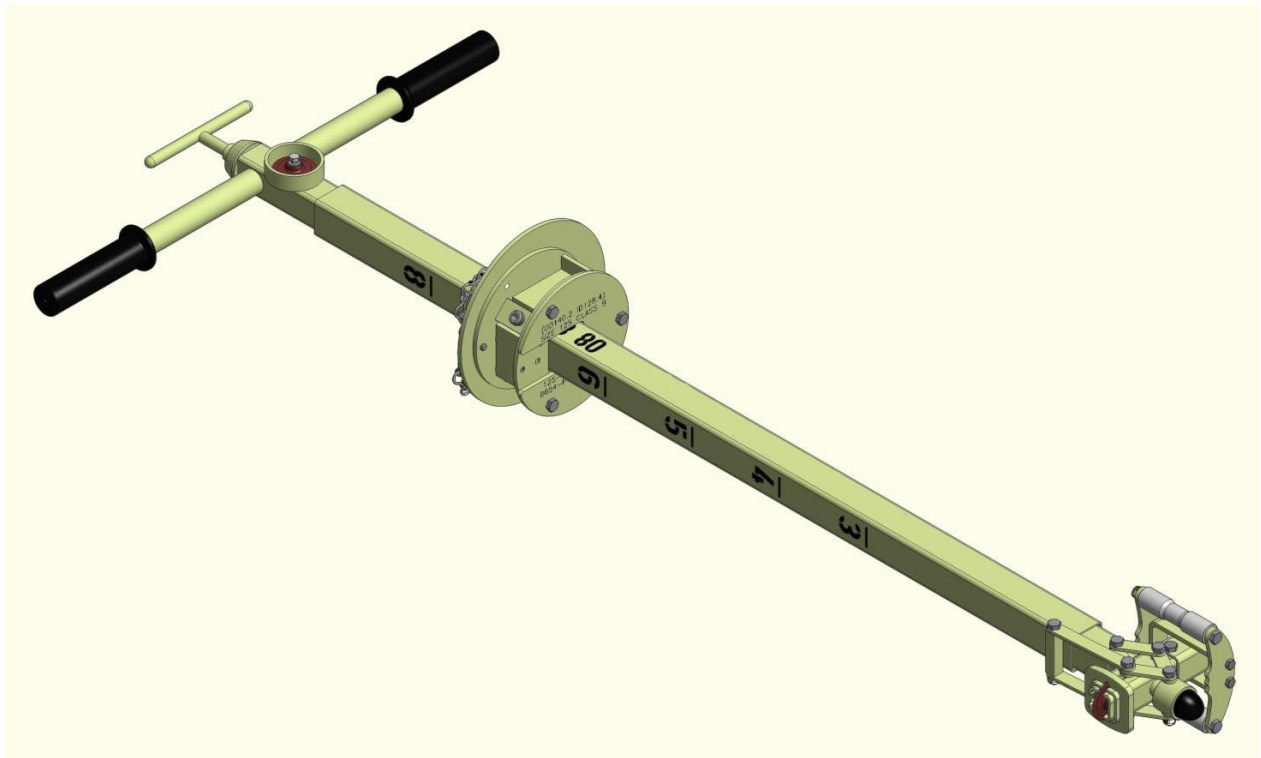


# PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual



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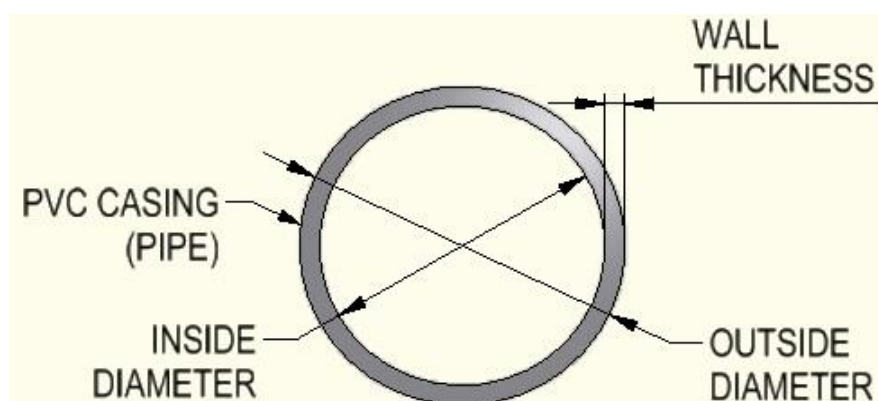
# **PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual**

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## **Applicable Casing Sizes**

The actual dimensions of each of the PVC casing sizes and classes which can be cut by the PVC Casing Cutter (SCW) size 100-125 are stated below in accordance with AS/NZS 1477 PVC Pipes & Fittings for Pressure Applications.



- Size 100, Class 9 (Outside Ø114.3 Inside Ø104.6 Wall Thickness 4.85)
- Size 100, Class 12 (Outside Ø114.3 Inside Ø101.7 Wall Thickness 6.3)
- Size 125, Class 9 (Outside Ø140.2 Inside Ø128.4 Wall Thickness 5.9)
- Size 125, Class 12 (Outside Ø140.2 Inside Ø124.9 Wall Thickness 7.65)
- Smallest Casing Inside Diameter that cutter will fit inside Ø96

# **PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual**

## **PVC Casing Cutter (SCW) Main Features**

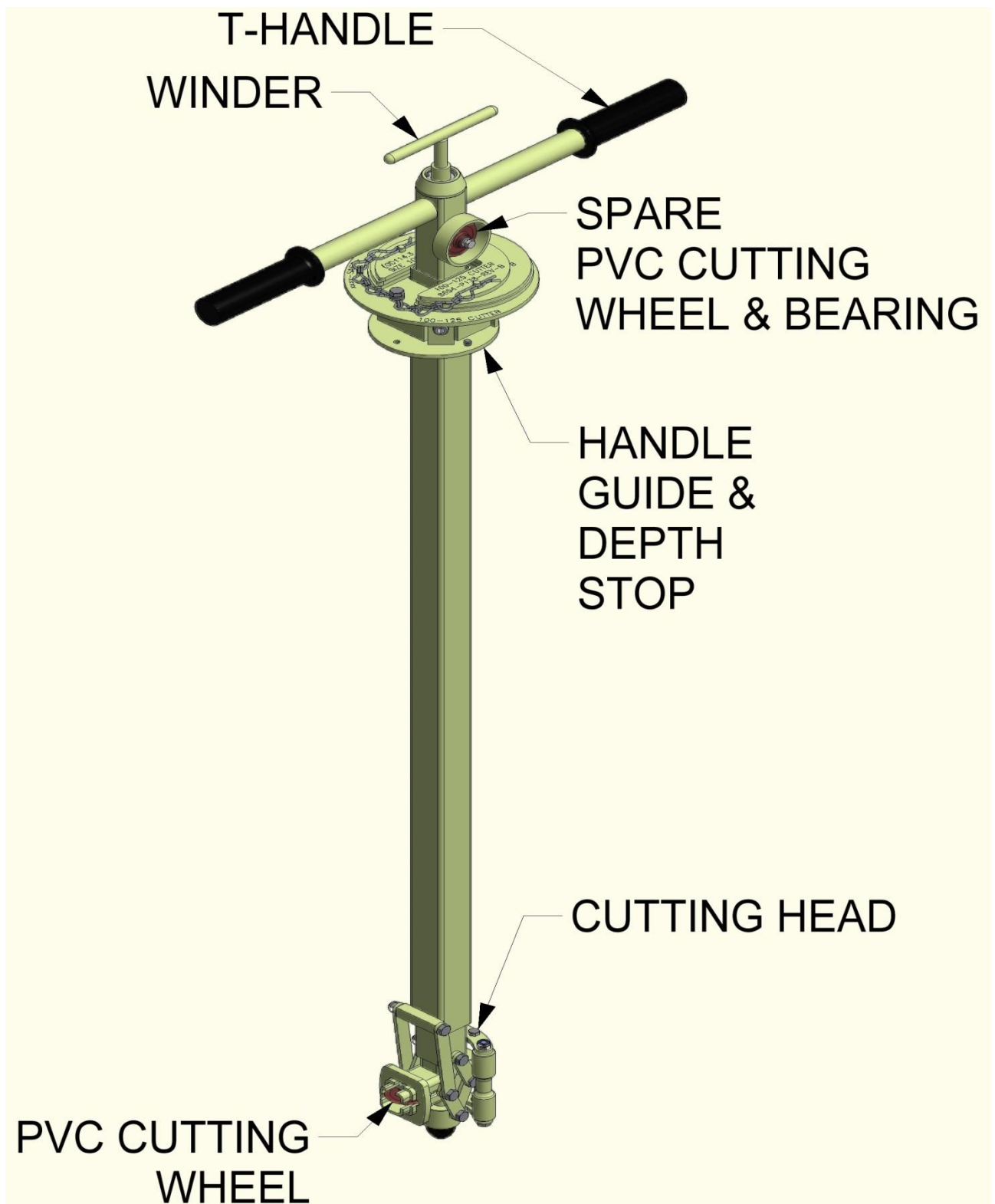
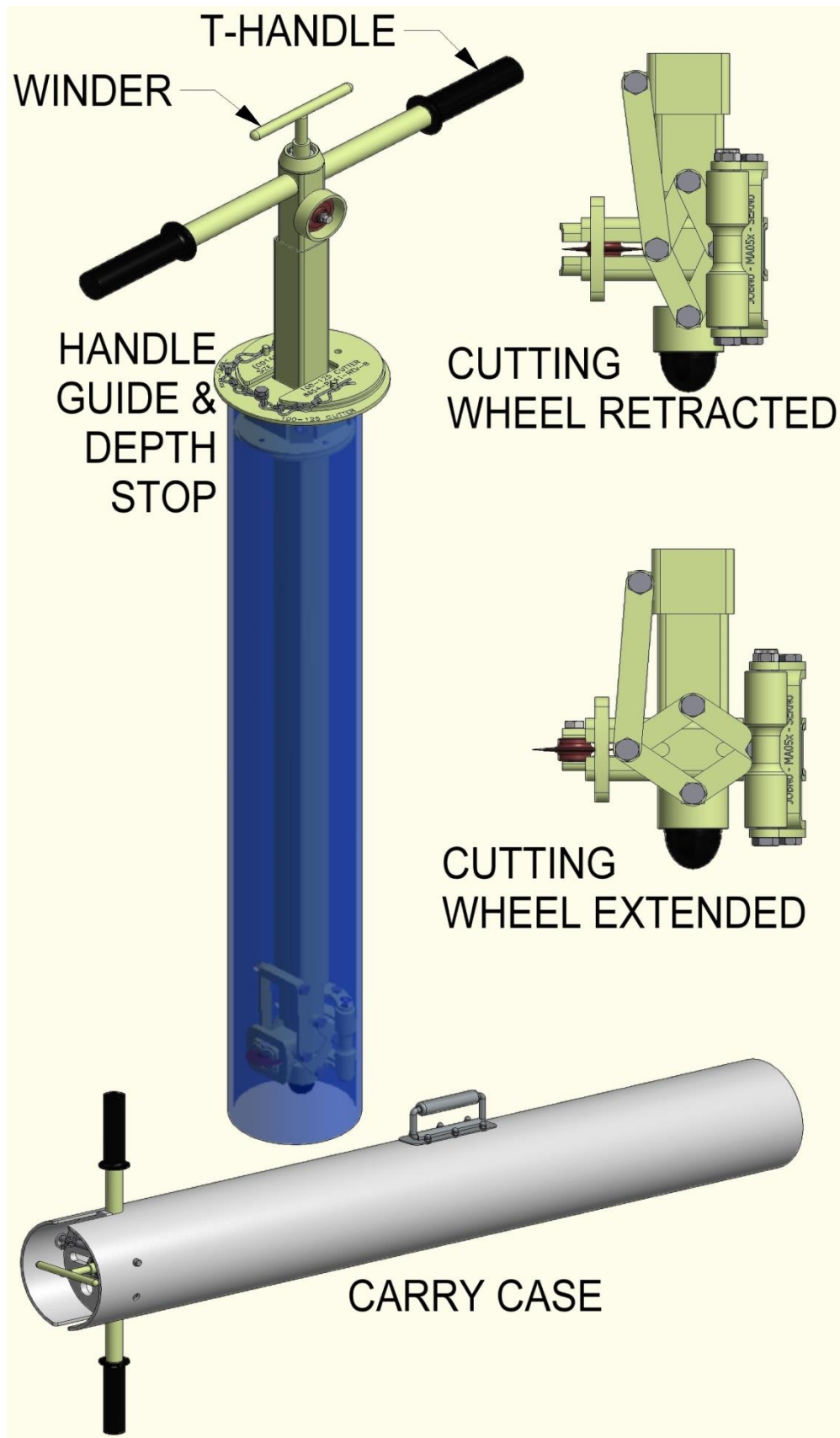


Figure 1a

# PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual

## Main Features (Cont)



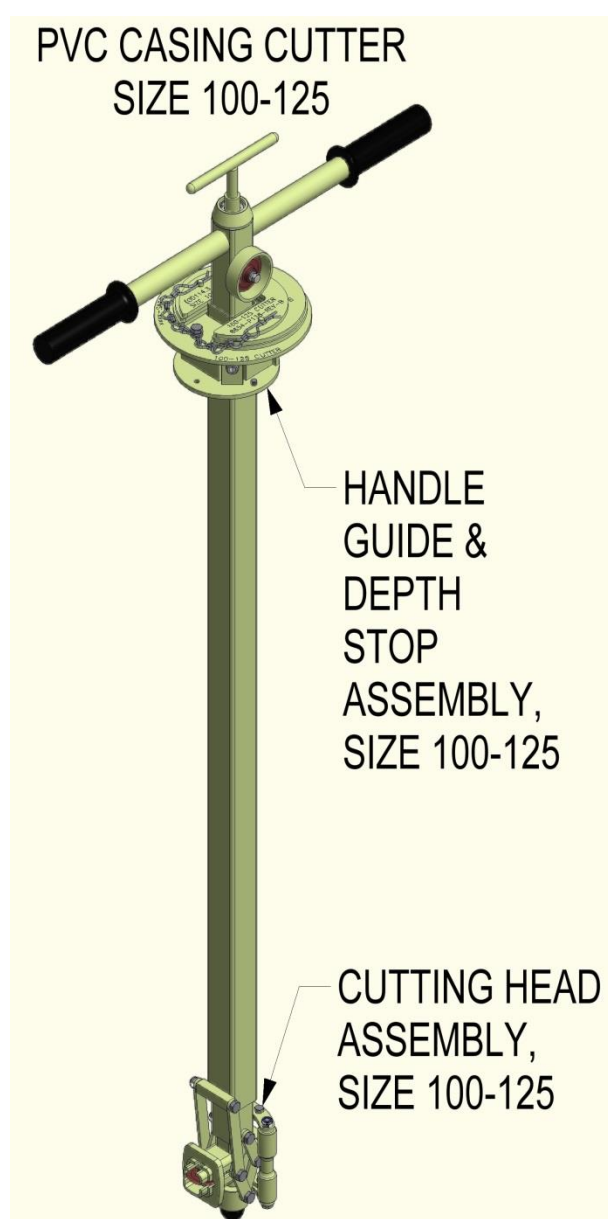
# **PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual**

## **Overview**

This Operators Manual covers the following PVC Casing Cutter (SCW) versions,

Item	Part Number	Description
001	8654 MA05A	PVC Casing Cutter, Size 100-125, 1 Metre
	8654 SA67	Guide Stop Assembly, Size 100-125
	8654 SA84	Carry Case 100-125-1 Metre
002	8654 MA05B	PVC Casing Cutter, Size 100-125, 1.6 Metre
	8654 SA67	Guide Stop Assembly, Size 100-125
	8654 SA84	Carry Case 100-125-1.6 Metre

(The picture below shows versions 001 & 002 without the Carry Case)



The PVC Casing Cutters are manually operated devices for internally cutting PVC bore casings with wall thicknesses that are less than 9mm.

Typically these devices are used in the rehabilitation of drilling sites where casings protruding above the ground are to be cut off below ground level before being plugged.

The two main features of the devices are the Cutting Head Assembly and the combined Handle Guide and Depth Stop Assembly.

# PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual

## Cutting Wheel, Description

- Each PVC Casing Cutter is supplied with the following cutting wheels fitted, unless otherwise specified at the time of purchase,
  - 8654 P62, for 6mm Wall (Wall thicknesses less than 7mm)
  - 8654 P61 Thin, for 8mm Wall (Wall thicknesses less than 9mm) or
  - 8654 P203 Thick, for 8mm Wall (Wall thicknesses less than 9mm)
- The cutting wheels are considered to be consumable items due to the cutting edge coming into contact with rubble & debris on breakthrough. Therefore we recommend that spares are purchased when ordering the first PVC Casing Cutter.

### Comparison between 8mm thin & thick Cutting Wheels.

- The 8654 P61 Thin PVC Cutting Wheel is the existing design as used in the field for many years.
  - The 8654 P203 Thick PVC Cutting Wheel introduced as an option in 2012 requires a little more effort to cut the casing than the 8654 P61 Thin PVC Cutting Wheel but is higher in strength due to its thicker profile.
- Selection is a matter of personal choice.

## Setup Procedure, Cutting Wheels

Select either a 6mm or 8mm PVC Cutting Wheel as per Figure 1c below, & Appendices A1 & A2 which detail casing size specific settings. For wall thicknesses less than 7mm use the 6mm PVC Cutting Wheel as it has greater strength. To gain access to the screw securing the PVC Cutting Wheel rotate the WINDER clockwise (See Figure 1a – page 3) to extend the cutting head until it reaches the end of its travel (Extended) as shown in Figure 1b – page 7. Install the PVC Cutting Wheel into the cutting head. Tighten the Cutting Wheel Bolt & torque to 5Nm such that the Bearing is clamped & only the PVC Cutting Wheel turns. (5Nm is approximately 5kg at the end of a 100mm long spanner.)

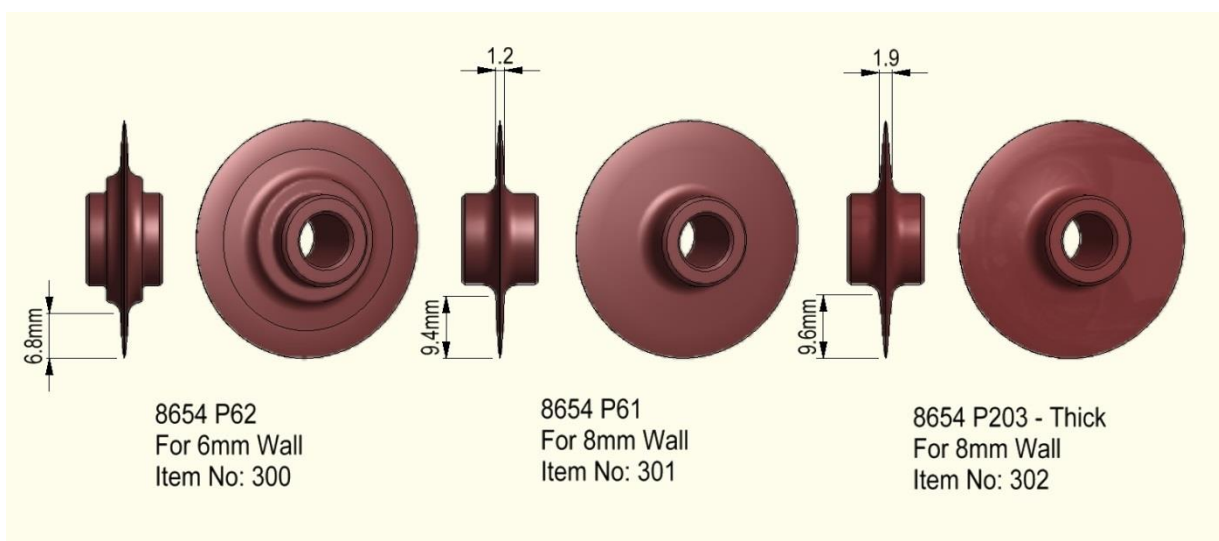


Figure 1c (PVC Cutting Wheels)



# **PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual**

## **Setup Procedure, Cutting Wheels (cont)**

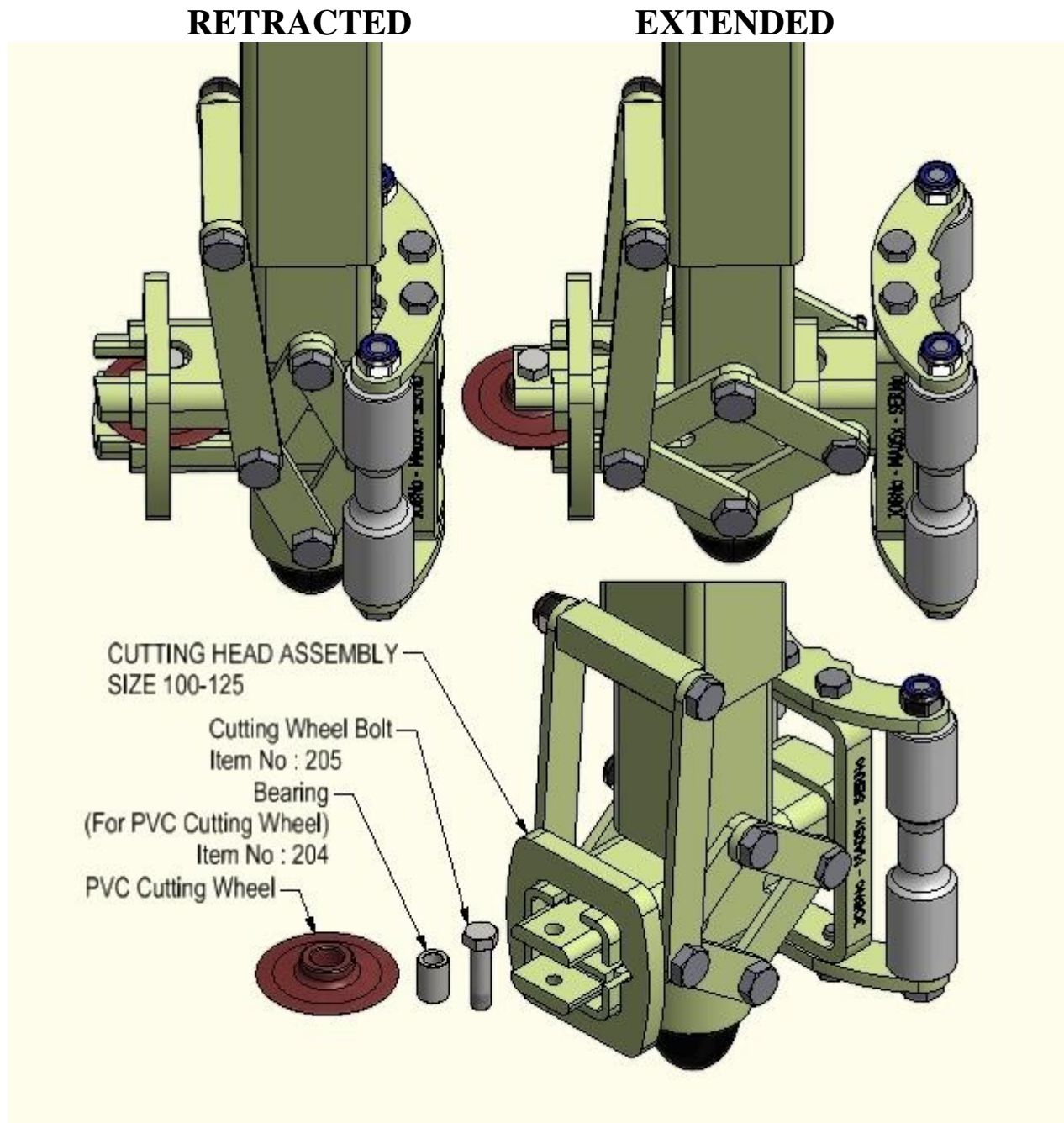


Figure 1b (Retracted, Extended & PVC Cutting Wheel Changeover.)

# PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual

## Setup Procedure, Roller Assembly

Set the Roller Assembly orientation to 0° for size 100 casings & 180° for size 125 casings using the 4 bolts (See Figures 2a & 2b). See Appendices A1 & A2 for detailed casing size specific settings.

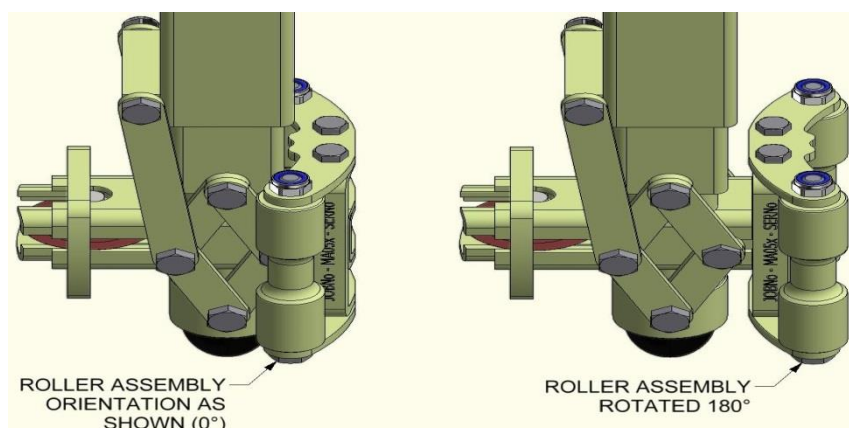


Figure 2a

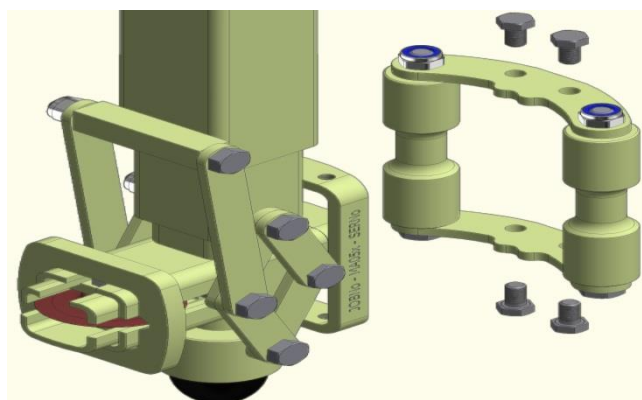


Figure 2b

Note: Check that when the mechanism is retracted the cutter fits inside the casing and when mechanism is extended using the WINDER (See Figure 1a) the cutting wheel extends well beyond outer casing wall (See Figure 2c).

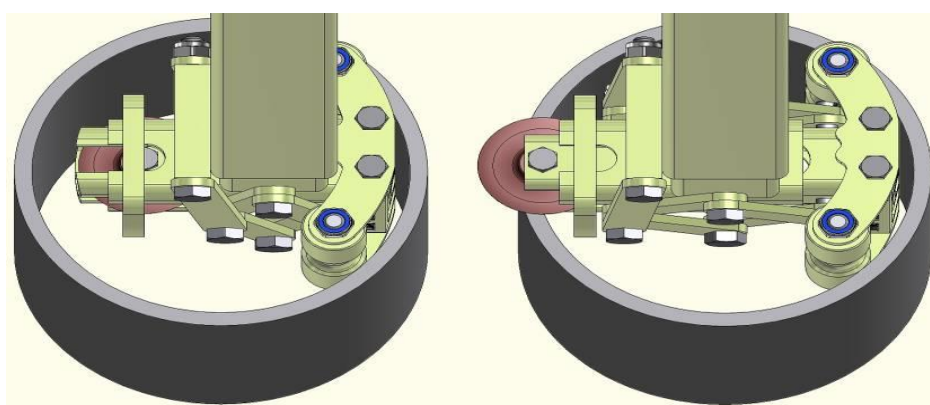


Figure 2c



# PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual

## Set-up Procedure, Guide Plates

Choose the Guide Plate that suits the casing size being cut. Each Guide Plate is engraved with a size to suit a specific casing size. Fit it underneath the Handle Guide & Depth Stop using the 3 bolts (See Figure 3a). See Appendices A1 & A2 (page 13) for detailed casing size specific settings.

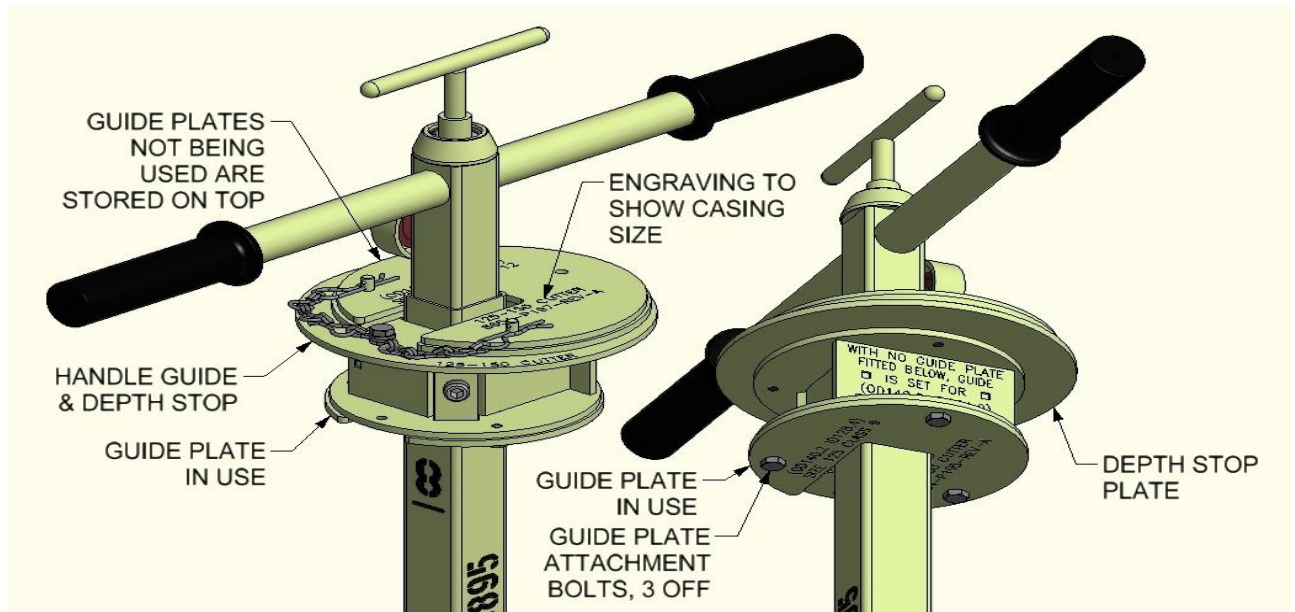


Figure 3a

## Set-up Procedure, Depth Stop

Set the casing cut off depth by moving the Handle Guide and Depth Stop assembly to the correct depth and re-tighten the Grub Screw (See Figure 4b). The actual maximum casing cut off depths for the 1 Metre & 1.6 Metre PVC Casing Cutters are as shown in Figure 4a.

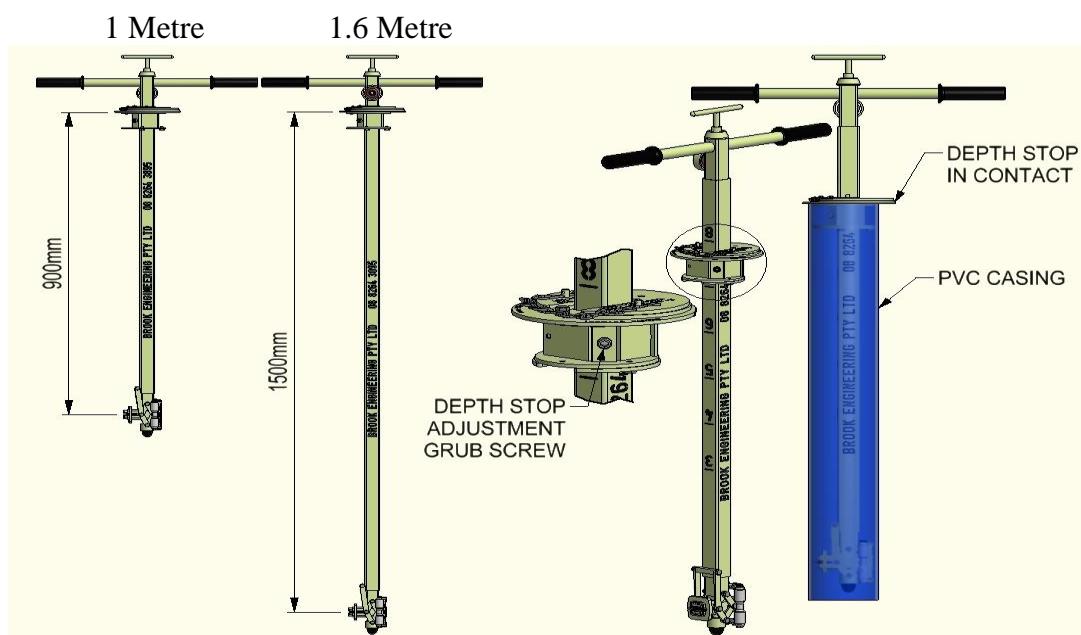
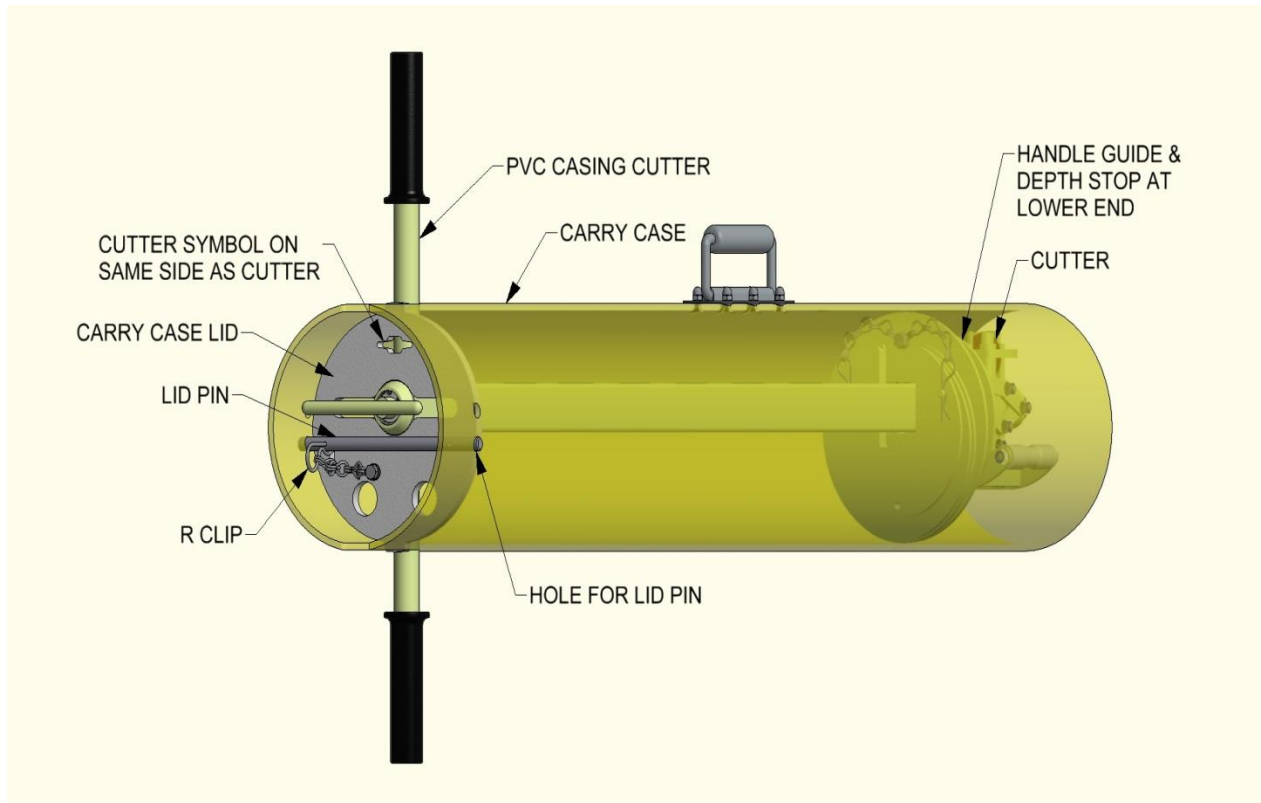


Figure 4a

Figure 4b

# **PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual**

## **Setup Procedure, Carry Case**



The Carry Case supplied is used to protect the Casing Cutter in transport and storage.

Removing the Casing Cutter from the Carry Case:

1. Pull R Clip out of Lid Pin.
2. Pull out Lid Pin from Carry Case.
3. Lift out Carry Case Lid from Carry Case.
4. Carefully lift Casing Cutter out of Carry Case.

Storing the Casing Cutter in the Carry Case:

1. Set the Handle Guide & Depth Stop down near the Cutting Head Assembly (having the Handle Guide & Depth Stop at that end ensures the Casing Cutter cannot move around excessively in the Carry Case).
2. Turn the WINDER handle anticlockwise until the PVC Cutting Wheel is fully retracted (to prevent damage to the PVC Cutting Wheel). Turn the WINDER handle clockwise again until it lines up with the T-HANDLE of the main Casing Cutter assembly.
3. Carefully insert the Casing Cutter, Cutting Head Assembly end first, into the Carry Case from the end with cut outs. The T-HANDLE goes into the cut outs in the Carry Case. Take note of which end of the T-HANDLE the PVC Cutting Wheel is aligned with.
4. Place the Carry Case Lid into the Carry Case. This should be oriented so the Cutter Symbol is aligned with the same end of the T-HANDLE as the PVC Cutting Wheel. See above diagram.
5. Insert the Lid Pin through holes in Carry Case above Carry Case Lid, position one of the small holes in the Lid Pin over the slot for the R Clip. See above diagram.
6. Insert the R Clip through hole in Lid Pin and into the Carry Case Lid to prevent the Lid Pin from falling out. See above diagram.
7. The whole unit can now be lifted by the handle on the Carry Case.

# **PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual**

## **Operating Instructions**

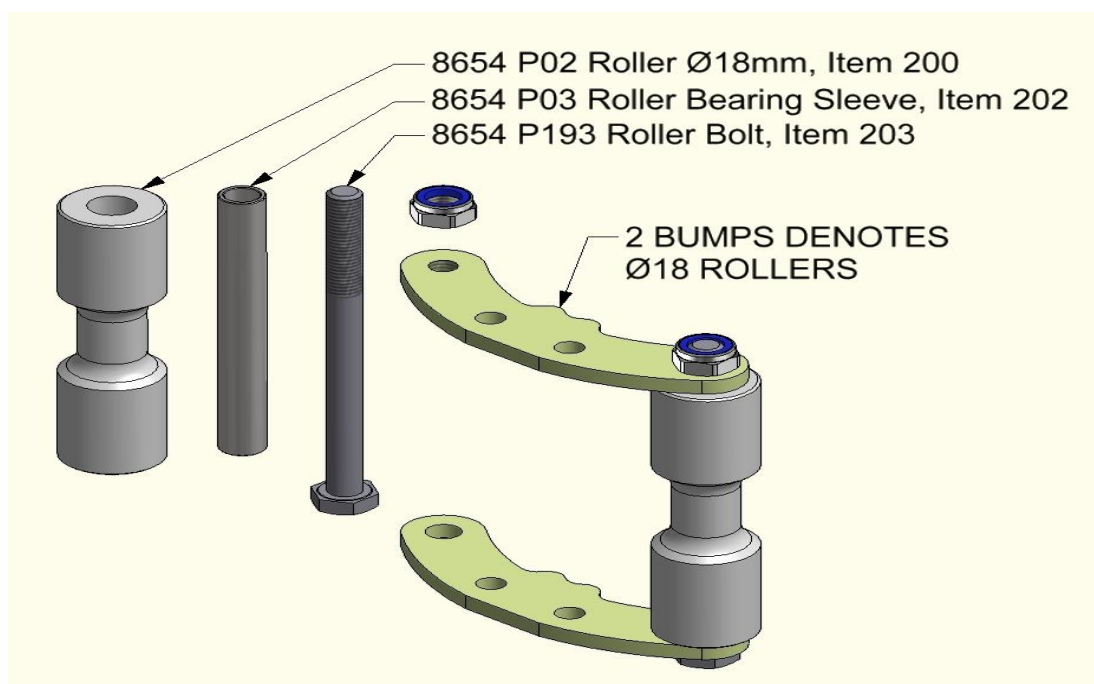
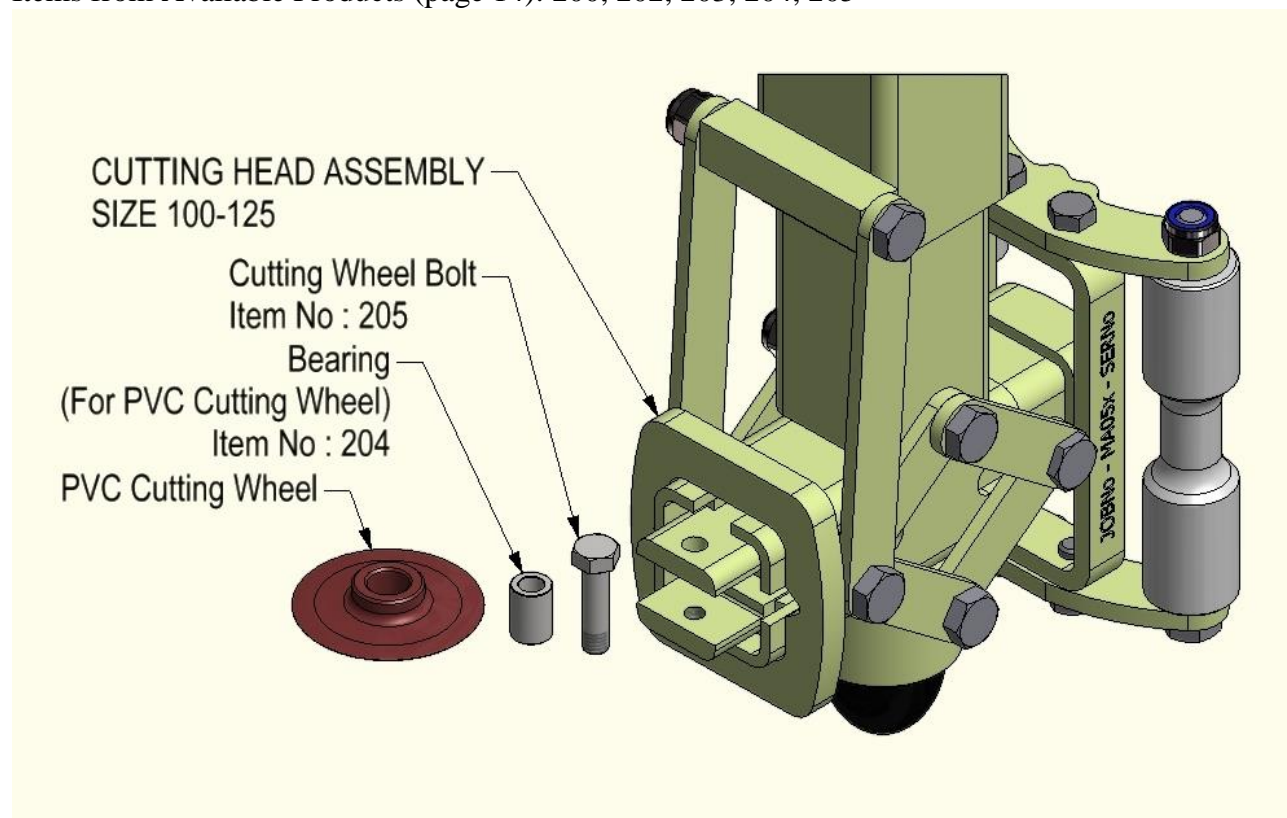
1. Lower the Casing Cutter into the casing until the Depth Stop (See Figure 4b page 9) contacts the PVC Casing to be cut.
2. Rotate the WINDER clockwise (See Figure 1a page 3) to extend the PVC Cutting Wheel until it engages the casing.
3. Turn the Casing Cutter using the T-HANDLE (See Figure 1a). Note: The Handle Guide & Depth Stop automatically maintains a parallel shaft and constant depth. Its use is recommended to prevent PVC Cutting Wheel damage and to reduce engagement time.
4. Increase the PVC Cutting Wheel engagement by rotating the WINDER clockwise (See Figure 1a). Note: Initially take light cuts until a continuous groove is formed. When a continuous groove is formed heavier cuts may be taken.
5. Repeat steps 3 & 4 until break through occurs. On class 9 casing approximately 3 turns of the WINDER handle will be required, on class 12 casing approximately 4 turns will be needed.
6. **CAUTION:** After break through fully retract the PVC Cutting Wheel by rotating the WINDER in the anticlockwise direction then extract the Casing Cutter from the casing.

**Note: Using the Casing Cutter to pull the cut off casing section out of the ground is not recommended & may damage the PVC Cutting Wheel. From full cutter extension to full cutter retraction the WINDER handle is turned approximately 15.5 turns.**

# PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual

## Spares for Cutting Head Assembly, Size 100 – 125

Items from Available Products (page 14): 200, 202, 203, 204, 205

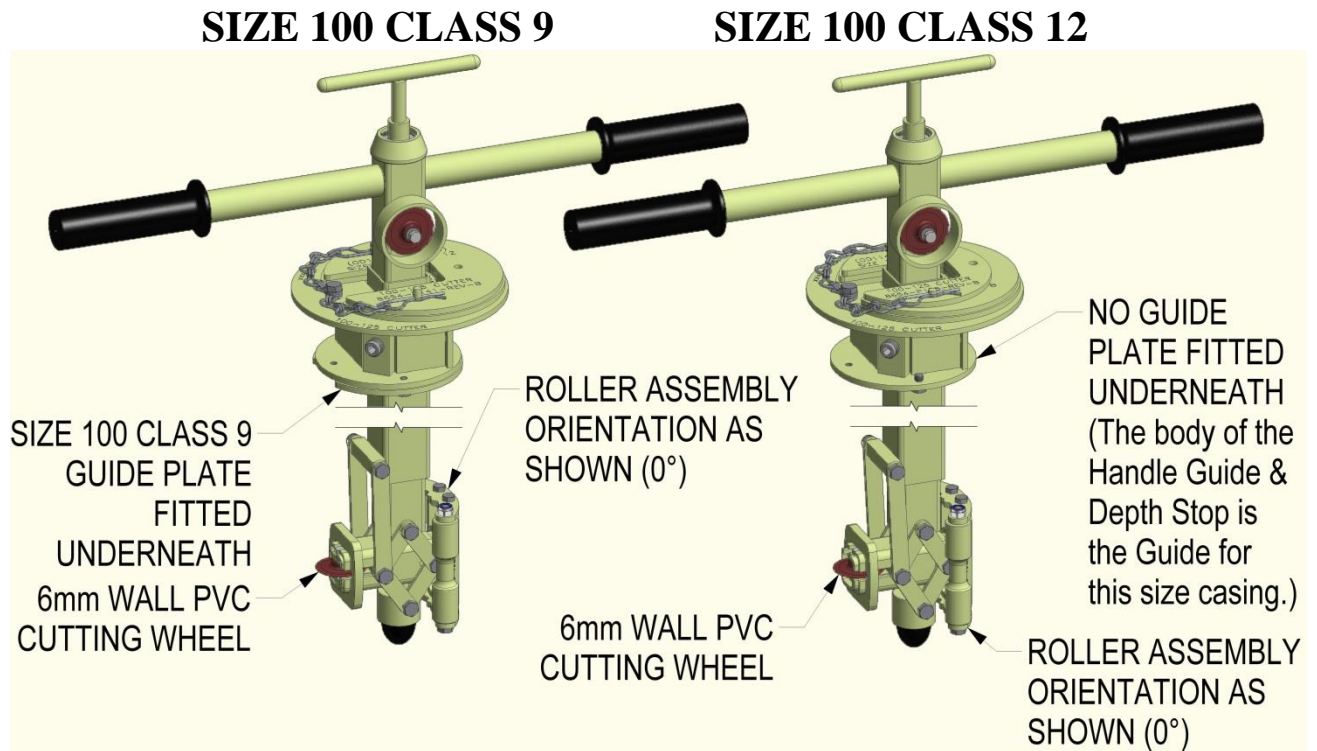


(8654 MA05A & B)

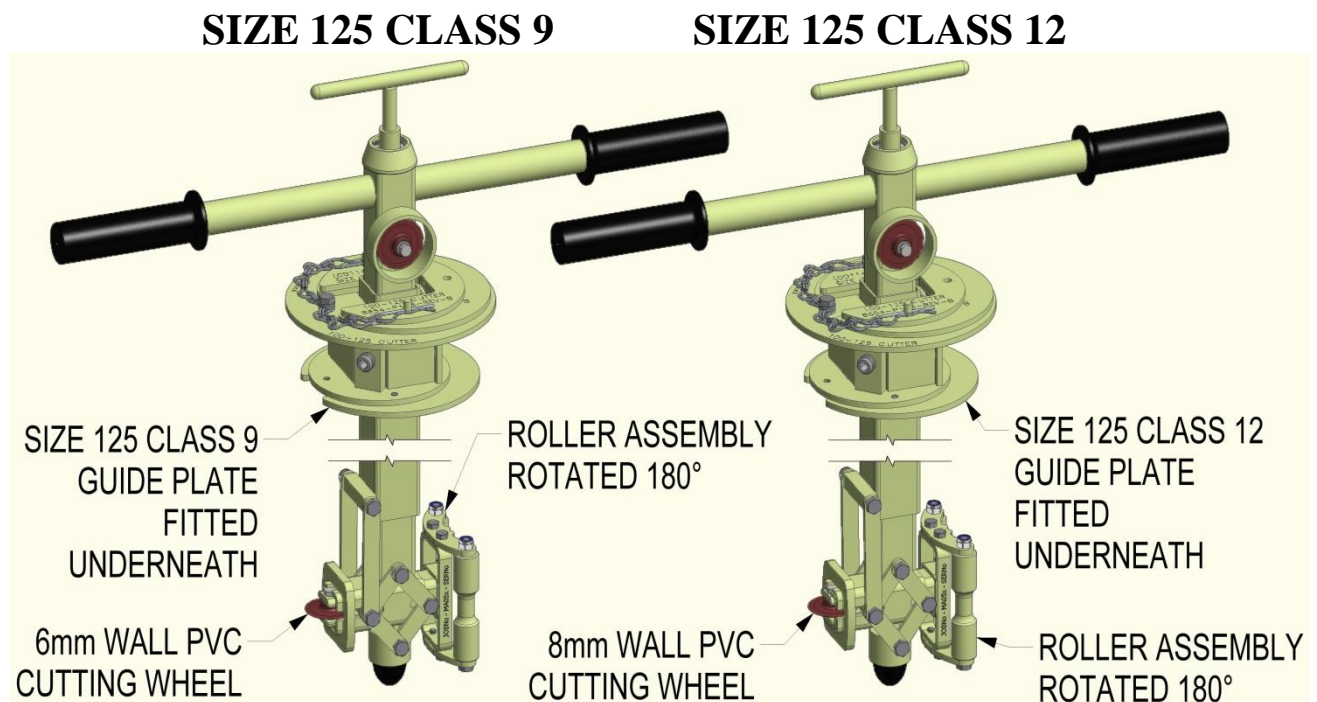


# PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual

## Appendix A1 Setup, Casing Size 100 Class 9 & 12



## Appendix A2 Setup, Casing Size 125 Class 9 & 12





## PVC Casing Cutter, Single Cutting Wheel (SCW) Size 100-125, Operators Manual

<b>Available Products</b>		
Item	Part Number	Description
001	8654 MA05A	PVC Casing Cutter <b>Size 100-125-1 Metre</b> # %
	8654 SA67	Guide Stop Assembly, Size 100-125
	8654 SA84	Carry Case 100-125-1 Metre
002	8654 MA05B	PVC Casing Cutter, <b>Size 100-125, 1.6 Metre</b> # %
	8654 SA67	Guide Stop Assembly, Size 100-125
	8654 SA84	Carry Case 100-125-1.6 Metre
003	8654 MA04A	PVC Casing Cutter, <b>Size 125-150, 1 Metre</b> # %
	8654 SA69	Guide Stop Assembly, Size 125-150
	8654 SA82	Carry Case 125-150-1 Metre
004	8654 MA04B	PVC Casing Cutter, <b>Size 125-150, 1.6 Metre</b> # %
	8654 SA69	Guide Stop Assembly, Size 125-150
	8654 SA82	Carry Case 125-150-1.6 Metre
005	8654 MA04A	PVC Casing Cutter, <b>Size 125-150, 1 Metre</b> # %
	8654 MA06A	Extension, <b>Size 175</b>
	8654 SA71	Guide Stop Assembly, Size 125-150-175
	8654 SA83	Carry Case 125-150-175-1 Metre
006	8654 MA04B	PVC Casing Cutter, <b>Size 125-150, 1.6 Metre</b> # %
	8654 MA06B	Extension, <b>Size 175</b>
	8654 SA71	Guide Stop Assembly, Size 125-150-175
	8654 SA83	Carry Case 125-150-175-1.6 Metre
<b>Spare Parts</b>		
200	8654 P02	Roller Ø18mm, Size 100-125 (Suits 8654 MA05A & B)
201	8654 P05	Roller Ø18mm, Size 125-150-175 (Suits 8654 MA04A & B, 8654 MA06, 8654 MA06A & B)
202	8654 P03	Roller Bearing Sleeve
203	8654 P193	Roller Bolt
204	8654 P101	Bearing (For PVC Cutting Wheel)
205	8654 P84	Cutting Wheel Bolt
<b>Consumables</b>		
300	8654 P62	PVC Cutting Wheel for 6mm Wall % (Wall thicknesses less than 7mm)
301	8654 P61	PVC Cutting Wheel, Thin, for 8mm Wall % (Wall thicknesses less than 9mm)
302	8654 P203	PVC Cutting Wheel, Thick, for 8mm Wall % (Wall thicknesses less than 9mm)

# Includes Qty 2 off PVC Cutting Wheels, one for 6 & one for 8mm wall thickness casings.

% We recommend additional spare PVC Cutting Wheels be purchased when ordering your first PVC Casing Cutter.