



**Maximum Performance  
in Hard Materials**

# Technical Reference Guide



**EBS<sup>TM</sup>**  
ELECTRICAL BOX SINKER  
**TRI-CUT**

# Quick Start Guide

## Single Square Hole

Drill a 6mm Pilot Hole



Remove Bulk of Material using the Tri-Cut Round Cutter



Square off using the Square Cutter in **Softer Materials**



Square off using HM Chisel in **Harder Materials**



Single Back Box  
**DONE!**



# Quick Start Guide

## Double Square Hole

Drill a 6mm Pilot Hole



Use the Spacing Template to Drill 2 more Correctly Spaced Pilot Holes.



Remove the Bulk of the Material using the Round Cutter Twice.



Square off using the Double Square Cutter in Softer Materials



Square off using HM Chisel in Harder Materials



Double Back Box  
**DONE!**



# Warranty & Technical Support

**Thank you for purchasing your innovative new Armeg Ltd Electricians EBS product.**

If you have any application questions or experience any technical problems / product malfunction with your EBS square hole drilling system from Armeg Ltd, please call our customer services department.



**Please do not return this product to your retailer before talking to Armeg Ltd.**

Please contact us using any of the following methods.

Tel: 01246 411081

Fax: 01246 411882

Email: [sales@armeg.co.uk](mailto:sales@armeg.co.uk)

For more information about other innovative electricians products and our ranges of premium quality drilling accessories please visit our website at [www.armeg.co.uk](http://www.armeg.co.uk).

Armeg Ltd, Callywhite Lane, Dronfield, England, S18 2XJ.

## Overview

The EBS system is capable of producing single and double back box holes in all masonry materials. The pilot drill and Tri-Cut round cutter are capable of forming round, flat backed holes in any masonry material. The Tri-Cut round cutter removes the bulk of material. The squaring off part of the operation is then carried out by using either the square cutters in softer masonry i.e. medium density blocks and soft bricks) or the 80mm wide HM chisel in hard materials such as engineering brick etc.



Scan here for an online video demonstration of the EBS Tri-Cut

or alternatively visit: [www.armeg.co.uk](http://www.armeg.co.uk)

or,

<http://www.youtube.com/watch?v=rD9KG3K-eNU>.



# Safety and Power Tool Recommendations

Wear safety goggles, gloves and ear defenders at all times when using EBS products & Channelling Chisels.

Whenever the power tool is not in use, ensure the power is turned off.

It is advisable to wear a dust mask even when using the Tri-Cut round cutter with the dust collection unit attached.

It is recommended to only use the square cutters if your power tool has roto-stop facility (chiselling function). However, the square cutters have a safety mechanism to prevent any mishap should rotation function be left on or if they are used in a power tool without the facility to turn rotation function off.

## Power Tool Recommendations

It is recommended to use EBS products in an SDS + machine with the following specifications:-

Ideally a machine with roto-stop facility (chiselling function)

Minimum weight of 2.3Kg

Minimum impact energy of 2.4 joules

Minimum wattage of 850 watts.

Less powerful machines may be used but speed of cut with the Tri-Cut round cutter will be slower and overheating of the power tool is possible after prolonged use.



# Materials

Your EBS drill is designed for use in block and brick type materials using SDS Plus Hammer Drilling Machines. As a general guide, the harder the materials, the slower the drill will operate and the faster it will wear. There are an enormous variety of different types of masonry materials, but the following is intended as a summary of the most common and their suitability or otherwise for the EBS drill.

## Common Block and Brick

The EBS is ideal for these types of materials and has been designed and developed to work at its most effective in these, the most common and softest masonry materials.

## Hard Bricks

Typically, engineering bricks or blue bricks can be cut with the round cutter but not with the square cutter. For this type of material, use the EBS Hard Material Chisel to produce the square hole. Speed and life of the EBS may be affected by drilling in these materials.

## Wet / Green Masonry or Uncured Concrete

Typically engineering bricks or blue bricks can be cut with the round cutter, but not with the square cutter. For this type of material, use the EBS Hard Material Chisel to produce the square hole. Speed and life of the EBS may be affected by drilling in these materials.

## Heavily Cavity Bricks

These may be drilled, but the operation can be difficult and complicated. Due to the cavity in the brick, it is difficult for the pilot drill to be supported and therefore centre in the material. This can cause problems and a neat result is difficult to produce. If the brick is too heavily cavitied, then mounting the switch box will also be difficult due to the potential lack of resulting solid masonry. Use in this application may lead to failure of the guide rod due to lack of support.

## Mortar

Drilling the pilot hole into mortar results in lack of support. This may cause problems with the finished quality of the hole. Use in this application may lead to failure of the guide rods.

# Operating

## STAGE

### 1

## Form a Round Hole

- A** Drill a pilot hole in the wall using a 6mm SDS+ drill bit. This should be at the centre position of the required back box hole.
- B** Insert the Tri-Cut round cutter into the power tool.
- C** Take the Tri-Cut round cutter and position the guide rod in the pilot hole.

## STAGE

### 2

## SOFTER MATERIALS Squaring Off with Square Cutter

- A** Insert the square cutter into the power tool. Switch machine to 'hammer only' mode i.e., disabling the rotary action.

**B** Bring the assembly to the wall and locate the guide rod in the pilot hole.

- C** Position the square cutter so its top edge is level and push onto the wall to prevent movement.

## STAGE

### 2

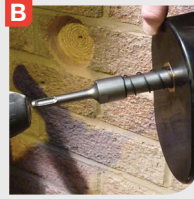
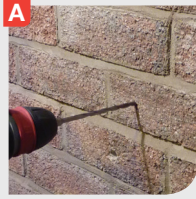
## HARDER MATERIALS Squaring Off with HM Chisel

- A** In harder masonry materials it will be necessary to square off using the hard material chisel. Insert the chisel into the power tool.



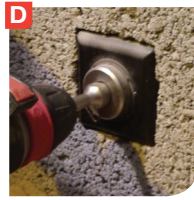
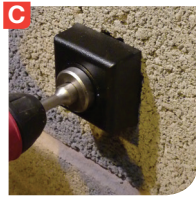
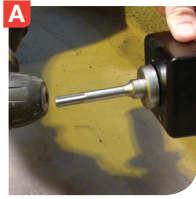
# Guidelines Single Back Box Sinking

**D** Commence drilling with the Tri-Cut round cutter on rotary and hammer function to the desired depth of back box to be sunk. The Tri-Cut round cutter with dust collection unit fitted has a maximum drilling depth of approximately 47mm.



**E** Withdraw the cutter from the hole and empty any debris collected by the dust collection unit into a suitable receptacle.

**D** Use the hammer action of the power tool to “punch” the square cutter into the wall. It works like 4 chisels all chiselling at the same time.

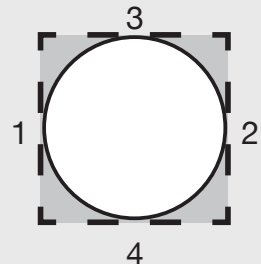
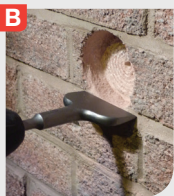


**E** Withdraw the cutter from the wall and brush out any debris, a square hole should now be ready for the insertion of a back box.

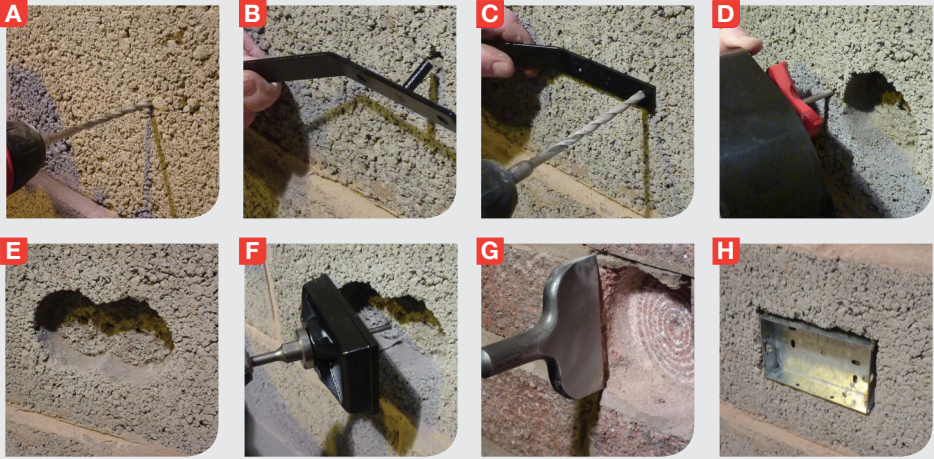
**B** Switch machine to ‘hammer only’ mode i.e. disabling the rotary action. Position the chisel on the wall either vertically or horizontally at a tangent to the round hole drilled previously. Shown at positions 1 – 4 on the diagram on the right.

**C** When the desired depth is reached, stop the machine and repeat for the other positions removing the shaded area on the diagram.

**D** Brush away any debris, a square hole should now be ready for the insertion of a back box.



# Operating Guidelines Double Back Box Sinking



**A** On the wall where the back box is to be located, mark the centre of the back box hole. Drill a pilot hole at this mark using a 6mm SDS drill bit.

**B** Place the peg of the spacing template in this pilot hole and hold in place horizontally.

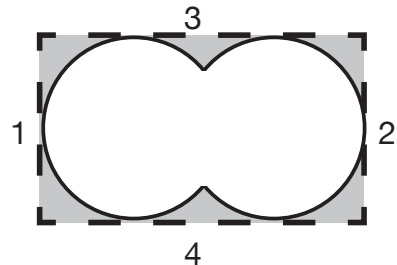
**C** Drill through the 2 guide holes with the 6mm SDS drill bit, these form the pilot holes for the round cutter. Then remove the template.

**D E** Follow the instructions for “(1) forming a round hole” from the single back box sinking instructions. But, instead form 2 round holes to the required depth using the outer 2 pilot holes of the 3 on the wall. The dust collection unit should be positioned covering the first of the 2 round holes when drilling the 2nd to minimise dust.

**F** In medium density block and softer brick, follow the instruction for “B – squaring off with the square cutter”. But, instead use the double square cutter inserted into the centre of the 3 pilot holes in the wall.

**G** In harder materials, follow the instructions for “C – squaring off using the chisel”. This time repeating until a double square hole is complete, removing the shaded area shown in the diagram below.

**H** Brush away any debris, a square hole should now be ready for the insertion of a double back box.





## Tips

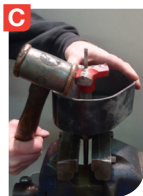
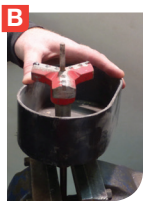
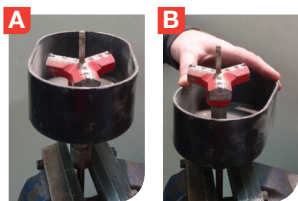
For optimum speed, when sinking multiple back boxes, drill all pilot holes, round holes and complete all squaring off sequentially as opposed to completing the whole operation from start to finish at each location. This will minimise time lost due to tool changes.

It is possible to produce double back box holes using the single square cutter. Simply drill two 6mm pilot holes in a horizontal line

on the wall 65mm apart. Then drill down to the depth required using the round cutter in these pilot holes. Square off using the square cutter in the same pilot holes.

It is advisable to lubricate all SDS+ shanks on accessories with grease periodically before insertion into the power tool.

## Spare Part Replacement



### Replacement guide rod for the round cutter with (dust collection unit) – EBS.DEXT.ADAPT

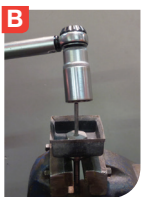
**A** Place assembly in a vice gripping on the flats machined on the shank of the guide rod. Make sure the SDS shank is pointing downwards and the cutter pointing upwards.

**B** Press down the dust collection unit compressing the spring to expose the round cutter.

**C** Hit one of the wings of the round cutter in an anti-clockwise direction using a soft faced hammer (e.g., copper or hide) to unscrew it from the guide rod.

**D** Everything should now come apart. Position of components should be noted to aid reassembly. Assembly is the reverse of this procedure with the new guide rod.

**Ensure screw threads are clean and free of debris before assembly.**



### Replacement guide rod for the single (DL100B4IG) and double (EBS DOUBLE BOX) square cutter

**A** Place assembly in a vice gripping on the flats machined on the shank of the guide rod. Make sure the SDS shank is pointing downwards and the cutter pointing upwards.

**B C** Take a 30mm box spanner or a long reach socket and unscrew the locknut visible in the throat of the cutter. The nut is a conventional thread and needs turning anti-clockwise to unscrew.

**D** Everything should now come apart. Position of components should be noted to aid reassembly. Assembly is the reverse of this procedure with the new guide rod.

**Ensure screw threads are clean before assembly.**

The above instructions on dismantling and reassembly can also be used when replacing the round cutter or the dust collection unit.

# User Guidelines Channelling Chisels

The following usage guidelines should be followed. Failure to follow these instructions could lead to product failure. Chisels that have been broken due to not following these guidelines are not warrantable:



## Usage

A little grease should be applied to the SDS shanks before use. Silicone grease or Molybdenum Disulphide (MoS<sub>2</sub>) is advisable.

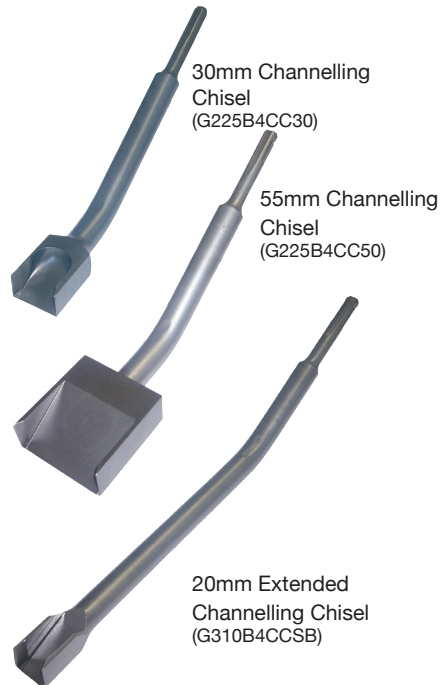
Armeg channelling chisels are designed for use in materials such as medium density block, soft bricks etc. They are not designed for use in hard materials such as cured concrete, hard concrete blocks and harder bricks.

Try to minimise leveraging action.

It is advisable to use the chisel for no longer than 20 minutes at a time. If used for this long they should be removed from the power tool and allowed to cool in still air before being used again.

## Sharpening

When the cutting edges become blunt they can be sharpened using a good quality file or a grinder. Try to maintain the cutting profiles that were present when new.



# EBS Accessories & Components

## Single Box Sinker Set

Includes: Tri-Cut c/w dust collection, Square Cutter, Hard Material Chisel, 6mm SDS Plus Hammer Drill Bit.  
(EBS.TC.SET)



## Complete Box Sinking & Channelling Set

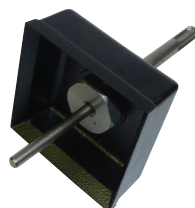
Includes: Tri-Cut c/w dust collection, Square Cutter, Double Square Cutter, Double Hole Spacing Template, Hard Material Chisel, 30mm Channelling Chisel, 5 x 6mm SDS Plus Hammer Drill Bit.  
(EBS.TCINST.SET)



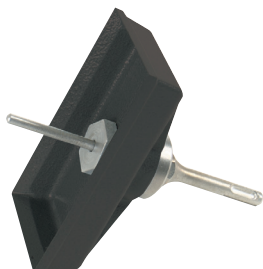
EBS Tri-Cut Cutter c/w SDS Plus Adaptor (EBS.ROUND.SET)



EBS Tri-Cut Cutter c/w SDS Max Adaptor (EBS.ROUND.SETMX)



EBS Square Cutter c/w SDS Plus Adaptor (EBS.SQUARE.SET)



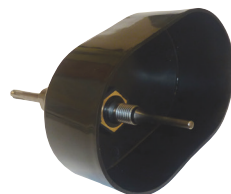
EBS Double Square Cutter c/w SDS Plus Adaptor (EBS.DOUBLE.BOX)



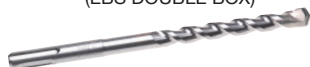
Hard Material Chisel (EBS.BSC.HM)



Double Hole Spacing Template (RCEBSDBLTEMP)



EBS Dust Collection Shroud and Drive Adaptor (EBS.DEXT.ASSY)



6.0 x 160mm SDS Plus Pilot Drill Bit (S06.0X160)



SDS Plus Drive Adaptor for EBS Round Cutter (DL100B41P)



SDS Plus Drive Adaptor for EBS Round Cutter c/w Dust Collection Unit (EBS.DEXT.ADAPT)



SDS Max Drive Adaptor for EBS Round Cutter (DL210MXR)

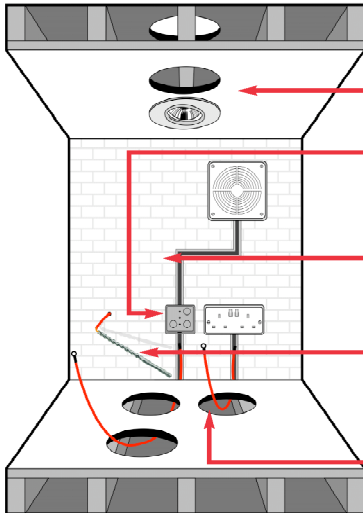


SDS Plus Drive Adaptor for EBS Square Cutter (DL100B41G)



SDS Plus Drive Adaptor for EBS Double Square Cutter (DL100B41GDB)

# The Complete FLOOR TO CEILING Electrical Installation Solution Range



## Adjustable Hole Cutter

For cutting access holes in ceilings  
Page 2



## Electrical Box Sinker

Drill a square hole in the hardest materials  
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## Channelling Chisel

Run quick and accurate channels in seconds  
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## Cable Guide & Cable Guide Drill

The multi-functional cable-routing tool  
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## Solid Board Cutter

For repeat access in solid floors  
Page 8 & 9



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