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# Mechanical Re-Rounding Clamps 20-400mm

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## Operating Instructions

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REVISION: 01



# Helping you make the right connections.

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# 01. Introduction

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## General Description

These products are suitable for use on PE pipe from 20mm to 400mm (dependant on model) prior to jointing by the electrofusion process and have been designed to comply with Gas Industry Standards GIS/PL2-5 Part 5 Electrofusion ancillary tooling.

Pipe is re-rounded by manual mechanical methods only, and can then be locked in position, whilst the pipe is re-rounded. Some of the units have been manufactured so that inserts can be fitted and used on various pipe dimensions.

Caldervale Technology Ltd has a policy of continuous improvement in product quality and design. Caldervale Technology Ltd therefore reserves the right to change the specification of its models at any time, without prior notice.

This product (Manual Mechanical Re-rounders) has been manufactured, inspected and tested in accordance with the ISO9001 quality control systems and procedures in place at Caldervale Technology Ltd, Dewsbury.

## Before Using

It is important to ensure all component parts are present and in serviceable condition. Check all threaded parts for damage. Ensure the reducing inserts (when required) are fitted with the correct screws.



## Important!

This tool should be used in accordance with the pipe manufacturers' recommendations and in line with local codes of practice.

This manual outlines the operation of the pipe re-rounding tooling for the scraping of polyethylene pipe and forms a part of the product to which it relates. It should be kept for the life of the product. Any amendments issued by Caldervale Technology Ltd should be incorporated in the text. The manual should be passed to any subsequent holder or user of this product.

These products are not suitable for re-rounding pipe which has previously been squeezed off, other products are available for this.

## 02. Safety Instructions

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1. Read and understand the whole instruction booklet before using the tool.
2. All possible precautions are to be made to avoid unexpected pipe movement when the tool is being use.
3. Never use the tool on pipes that are not within the specified dimensions.
4. Never use the re-rounder on PE pipe which is not suitable for re-rounding. If in doubt contact the pipe manufacturer.
5. Operatives should wear eye protection, gloves, safety headwear and footwear when using the equipment.
6. The clamps vary in weight between 1.5kg through to 90kg dependant on model care should be taken when in use. If above 25kg lifting must be by 2 persons.
7. To avoid injury the re-rounder should be closed and secured and if safety chains are fitted they should be latched in position.

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**It is the responsibility of the operator to ensure that the PE pipe is suitable for re-rounding. If in doubt contact the PE pipe manufacturer for confirmation.**

## 03. Re-Rounder Models

### Nutcracker Type



Product Code	Description
01-08-001	Nutcracker type 20mm
01-08-002	Nutcracker type 25mm
01-08-003	Nutcracker type 32mm
01-08-004	Nutcracker type 40mm
01-08-005	Nutcracker type 50mm

### Hinged Collar Type



**Range 63-75mm**



**Range 90-180mm**

Product Code	Description
01-08-006	Hinged collar type 63mm
01-08-007	Hinged collar type 75mm
01-08-008	Hinged collar type 90mm
01-08-009	Hinged collar type 110mm
01-08-010	Hinged collar type 125mm
01-08-011	Hinged collar type 140mm
01-08-012	Hinged collar type 160mm
01-08-013	Hinged collar type 180mm

## Split Collar Type



Product Code	Description
01-08-014	Split collar with ratchet 200mm
01-08-015	Split collar with ratchet 225mm
01-08-016	Split collar with ratchet 250mm

## Segmented Collar Type



Product Code	Description
01-08-028	Segmented collar 280mm with ratchet
01-08-020	Segmented collar 315mm with ratchet
01-08-021	Segmented collar 355mm with ratchet
01-08-022	Segmented collar 400mm with ratchet
01-08-026	Set of reducing liners 400-355mm (2 pieces)
01-08-027	Set of reducing liners 400-315mm (2 pieces)

## 04. Operation

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### Instructions for Use

The tools are designed to be clamped around a section of pipe prior to it being fitted into an electrofusion collar. Most pipes have some out of roundness caused in the production and storage process, to avoid problems caused in joint assembly it is necessary to remove this out of roundness by applying a circular clamp to the pipe end, the re-rounding action of the clamp temporarily allows for the pipe to be scraped and the joint assembled before the natural memory of the pipe material returns the pipe to its out of round shape.

1. The tool should be opened and fixed round the pipe, then closed and locked in position, it is not necessary to fully tighten the clamp until both free halves come together, the clamp is designed for the pipe cavity not to be a complete circle, this allows for use with pipe at the upper size of its tolerance range. Tightening both halves of the clamp until they meet will exceed the correct roundness of the pipe and then start to compress the pipe and damage the clamp.
2. Tightening should be finished when the pipe reaches its roundest point.
3. It is recommended that the re-rounding process be applied for a minimum of 10 minutes before releasing the tool.
4. On completion of the re rounding process, release the clamp and slide back down the pipe sufficient to scrape the pipe using a mechanical scraping tool using normal scraping procedure.
5. On completion of scraping bring the re rounding clamp forward to the end of the scraped area and retighten to maintain pipe roundness while the joint is assembled.

## Removal

**Care must be taken on removing the clamp to ensure injury to operatives is avoided.**

### Nutcracker Re-Rounders:

1. Holding both handles securely release the handle latch.
2. Release the pressure on the handles and remove the re-rounder from the pipe.

**Note:** Care should be taken not to damage the already re-rounded pipe.

### Other Re-Rounders:

1. Ensure any chains are removed from the re-rounder.
2. Loosen the re-rounding clamp using the handle or the clamping nut by turning anticlockwise and carefully remove from the pipe.

**Note:** Care should be taken not to cause damage to the already re-rounded pipe end.



## Storage

**IMPORTANT! When not in use always:**

1. Ensure the equipment is clean and dry before storage.
2. Store in a clean, damp free environment.
3. Make sure the store is not subject to extreme temperature changes.

## Routine Maintenance

1. Check for correct movement and operation and lubricate moving parts and threads at regular intervals before using.
2. It is important to ensure all component parts are present and in serviceable condition.

## 05. Specifications: Nutcracker Type

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<b>Materials:</b>	Aluminum / Mild Steel
<b>Finish:</b>	Natural / Zinc passivate to mild steel
<b>Dimensions:</b>	L275 x W70 x H20mm
<b>Weight:</b>	0.54kg – 0.46kg
<b>Min Pipe Diameter:</b>	20mm
<b>Max Pipe Diameter:</b>	50mm
<b>SDR:</b>	All SDR ratings
<b>Product Codes:</b>	01-08-001, 01-08-002, 01-08-003, 01-08-004, 01-08-005

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This unit is design and manufactured to meet the requirements of GIS/ PL2-5 Part 5 Electrofusion ancillary tooling.

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**It is the responsibility of the operator to ensure that the PE pipe is suitable for this clamping system if in doubt contact the PE pipe manufacturer for confirmation.**

## 06. Specifications: Hinged Collar Type 63-75mm

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<b>Materials:</b>	Aluminum / Mild Steel / Brass / Plastic Handle
<b>Finish:</b>	Natural / Zinc passivate to mild steel
<b>Dimensions:</b>	L125 x W130 x H50mm L130 x W140 x H50mm
<b>Weight:</b>	0.8kg
<b>Min Pipe Diameter:</b>	63mm
<b>Max Pipe Diameter:</b>	75mm
<b>SDR:</b>	All SDR ratings
<b>Product Codes:</b>	01-08-006, 01-08-007

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**It is the responsibility of the operator to ensure that the PE pipe is suitable for this clamping system if in doubt contact the PE pipe manufacturer for confirmation.**

## 07. Specifications: Hinged Collar Type 90-180mm

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<b>Materials:</b>	Aluminum / Mild Steel / Brass / Plastic Handle
<b>Finish:</b>	Natural / Zinc passivate to mild steel
<b>Dimensions:</b>	L230 x W230 x H80mm L280 x W310 x H80mm
<b>Weight:</b>	1.67kg – 2.45kg
<b>Min Pipe Diameter:</b>	90mm
<b>Max Pipe Diameter:</b>	180mm
<b>SDR:</b>	All SDR ratings
<b>Product Codes:</b>	01-08-008, 01-08-009, 01-08-010, 01-08-011, 01-08-012, 01-08-013

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**It is the responsibility of the operator to ensure that the PE pipe is suitable for this clamping system if in doubt contact the PE pipe manufacturer for confirmation.**

## 08. Specifications: Split Collar Type

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<b>Materials:</b>	Aluminum / Mild Steel / Brass
<b>Finish:</b>	Natural / Zinc passivate to mild steel
<b>Dimensions:</b>	L370 x W390 x H50mm
<b>Weight:</b>	3kg – 3.9kg
<b>Min Pipe Diameter:</b>	200mm
<b>Max Pipe Diameter:</b>	250mm
<b>SDR:</b>	All SDR ratings
<b>Product Codes:</b>	01-08-014, 01-08-015, 01-08-016

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**It is the responsibility of the operator to ensure that the PE pipe is suitable for this clamping system if in doubt contact the PE pipe manufacturer for confirmation.**

## 09. Specifications: Segmented Collar Type

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<b>Materials:</b>	Mild Steel / Brass
<b>Finish:</b>	Powder Coat / Zinc passivate to mild steel
<b>Dimensions:</b>	L500 x W410 x H100mm L630 x W510 x H150mm
<b>Weight:</b>	16.8kg – 23.7kg
<b>Min Pipe Diameter:</b>	280mm
<b>Max Pipe Diameter:</b>	400mm
<b>SDR:</b>	All SDR ratings
<b>Product Codes:</b>	01-08-021, 01-08-024, 01-08-022, 01-08-029

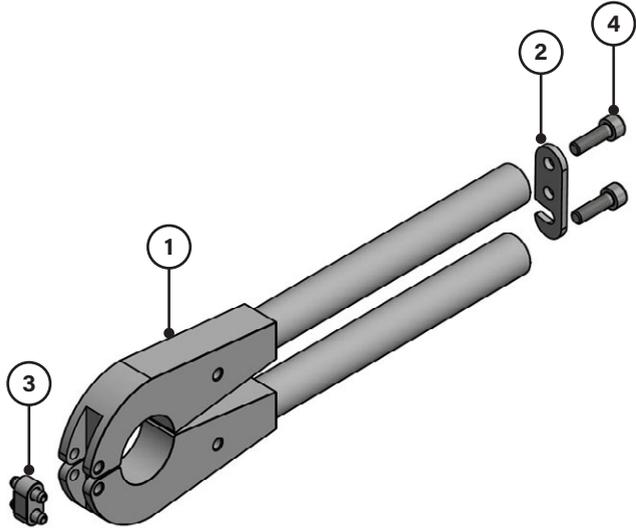
This unit is design and manufactured to meet the requirements of GIS/ PL2-5 Part 5 Electrofusion ancillary tooling.

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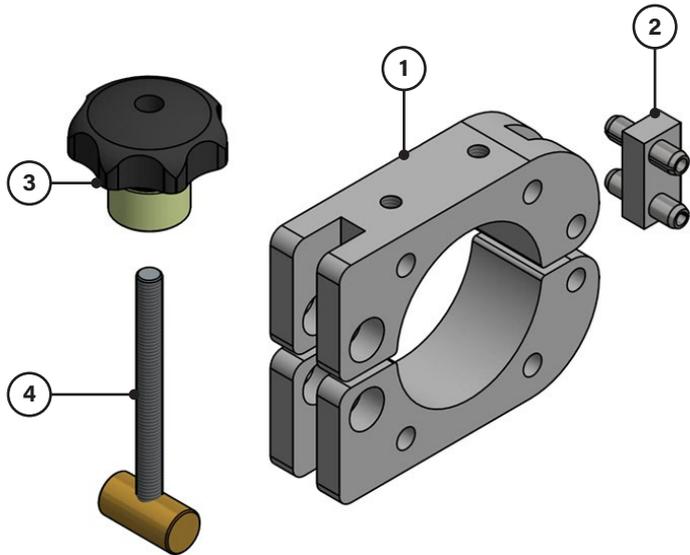
**It is the responsibility of the operator to ensure that the PE pipe is suitable for this clamping system if in doubt contact the PE pipe manufacturer for confirmation.**

## 10. Parts Diagram: Nutcracker Type



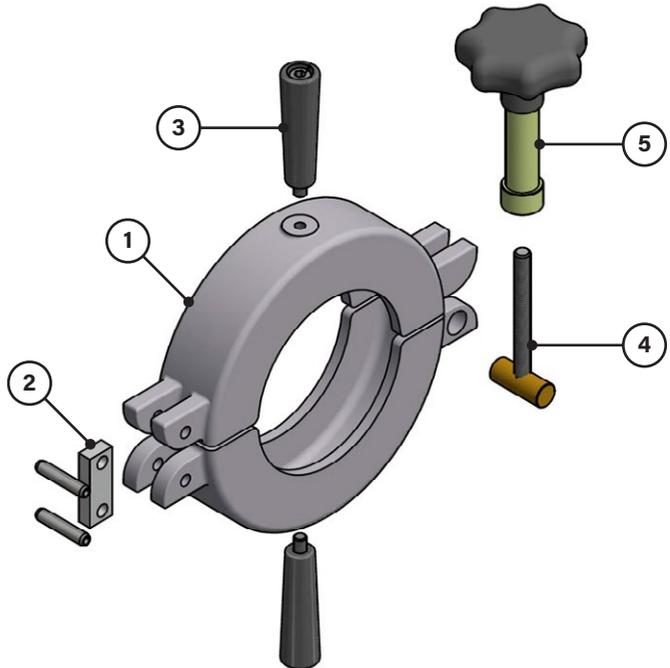
Part	Product Code	Description
	TBC	Spare body and handle 20mm rerounder
	TBC	Spare body and handle 25mm rerounder
1	TBC	Spare body and handle 32mm rerounder
	TBC	Spare body and handle 40mm rerounder
	TBC	Spare body and handle 50mm rerounder
2	TBC	Spare handle latch
3	TBC	Hinge repair kit
4	TBC	Spare cap head screws x2 (for handle latch)

## 11. Parts Diagram: Hinged Collar Type 63-75mm



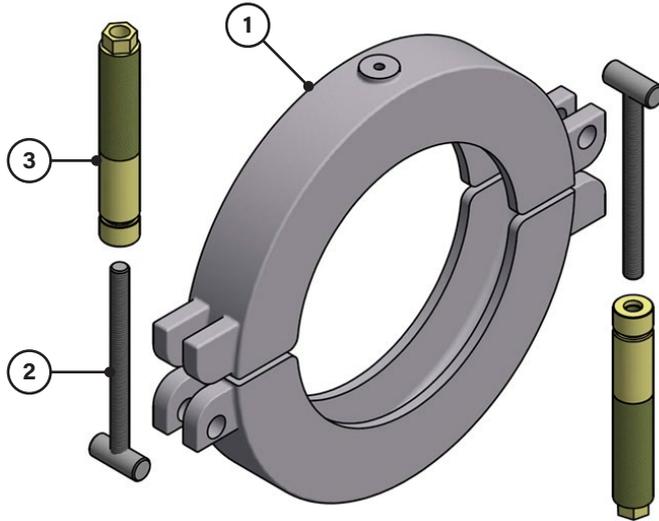
Part	Product Code	Description
1	TBC	Spare body 63mm rerounder
	TBC	Spare body 75mm rerounder
2	TBC	Hinge repair kit
3	TBC	Spare black handle
4	TBC	Spare clamping thread and toggle

## 12. Parts Diagram: Hinged Collar Type 90-180mm



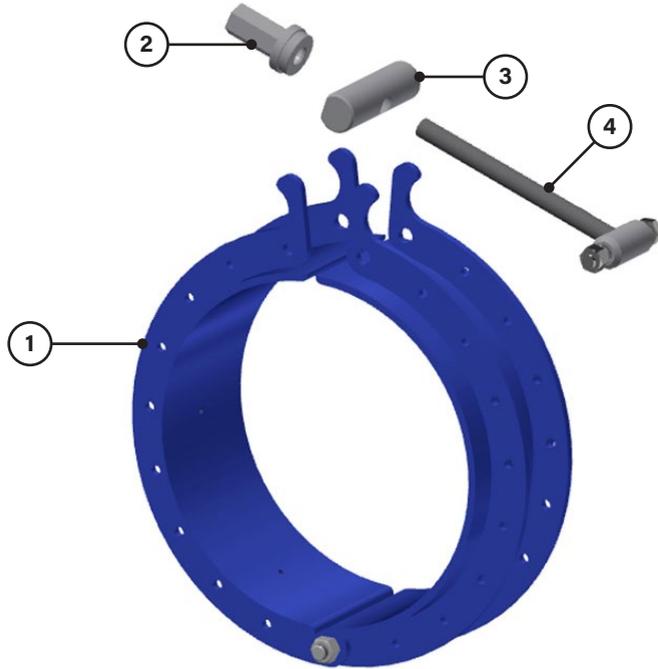
Part	Product Code	Description
	TBC	Spare body 90mm rerounder
	TBC	Spare body 110mm rerounder
1	TBC	Spare body 125mm rerounder
	TBC	Spare body 140mm rerounder
	TBC	Spare body 160mm rerounder
2	TBC	Hinge repair kit
3	TBC	Spare tapered handle
4	TBC	Spare thread and toggle
5	TBC	Spare clamping hand wheel

## 13. Parts Diagram: Split Collar Type



Part	Product Code	Description
	TBC	Spare body 200mm split collar rerounder
1	TBC	Spare body 225mm split collar rerounder
	TBC	Spare body 250mm split collar rerounder
2	TBC	Hinge repair kit
3	TBC	Spare clamping handle

## 14. Parts Diagram: Segmented Collar Type



Part	Product Code	Description
	TBC	Spare body 400mm segmented collar type re-rounder
	TBC	Spare body 355mm segmented collar type re-rounder
1	TBC	Spare body 315mm segmented collar type re-rounder
	TBC	Spare body 280mm segmented collar type re-rounder
2	TBC	Thrust nut assembly
3	TBC	Thrust nut toggle
4	TBC	Spare clamping thread and bolt

## 15. Warranty Information

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### 1. Extent of Warranty

- a) Subject to clauses 2 and 3, Caldervale Technology Ltd warrants to the end-user customer that its products will be free from defects in materials and workmanship, for six months after the date of purchase by the end-user customer, subject to providing proof of purchase.
- b) If Caldervale Technology Ltd receives, during the warranty period, notice of a defect in product which is covered by this warranty; Caldervale Technology Ltd shall either repair or replace the product, at its option. Any replacement product may be either new or like-new, provided that it has functionality at least equal to that of the product being replaced.
- c) All warranty work will be carried out by Caldervale Technology Ltd unless otherwise agreed. On-site warranty and repair or replacement services are available from authorised Caldervale Technology Ltd service facilities world-wide.
- d) Customers shall prepay shipping charges for products returned to Caldervale Technology Ltd for warranty service, and Caldervale Technology Ltd will charge for return of the products back to the customer.
- e) This warranty statement gives the customer specific legal rights. The customer may also have other rights which vary from country to country in the world.

### 2. Pre-conditions for Warranty Application

Caldervale Technology Ltd's warranty covers only those defects which arise as a result of normal use of the product, and this warranty shall only apply in the following circumstances:

- a) All the instructions contained in the operating manual have been complied with; and
- b) None of the following apply:
  - i) Improper or inadequate maintenance;
  - ii) Physical abuse;
  - iii) Unauthorised modification, misuse or any use not in accordance with the operating manual and good industry practice;

- iv) Operation outside the products specifications;
- v) Improper site preparation or maintenance;
- vi) Faulty pipes.

### 3. Limitations of Warranty

- a) Caldervale Technology Ltd does not warrant the operation of any product to be uninterrupted or error free.
- b) Caldervale Technology Ltd makes no other warranty of any kind, whether express or implied, with respect to its products. Caldervale Technology Ltd specifically disclaims the implied warranties of satisfactory quality and fitness for a particular purpose.
- c) To the extent that this warranty statement is inconsistent with the law of the locality where the customer uses the product, this warranty statement shall be deemed modified by the minimum necessary to be consistent with such local law.
- d) To the extent allowed by local law, the remedies provided in this warranty statement are the customer's sole and exclusive remedies.
- e) This tool has been designed for the range of pipes available at the time of its design and development. Caldervale Technology Ltd can accept NO liability for the unit's ability or otherwise to work with new or different pipes that subsequently appear in the market place.

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**Please complete this information and keep it safely with your proof of purchase receipt. You will require it for any warranty claim.**

Where purchased: \_\_\_\_\_

Date of purchase: \_\_\_\_\_

Name of purchaser: \_\_\_\_\_

Address of purchaser: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Type of tool: \_\_\_\_\_

Serial number: \_\_\_\_\_

## 16. Service and Repair

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These products have no specific calibration period, however periodic safety inspections should be carried out by the operator as specified in this manual, if in any doubt please contact the manufacturer for further information.

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## 17. Decommissioning and Disposal

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These give the instructions for decommissioning and disposal of the equipment and confirm how it is to be taken out of service safely, in respect of the Essential Environmental, Health and Safety Requirements.

- If a Caldertech Re-Rounding tool has reached the end of its useful working life and cannot be refurbished it must be sent to a licensed recycling facility for treatment. That will ensure the waste hierarchy requirements are met.
- End of life treatment is the responsibility of the Customer. This can also be achieved by returning the product back to the manufacturer if required.



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## Certificate of Conformity

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This document certifies that the product detailed below fully conforms to the following standard without derogation.

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**GIS/PL2-5:2018 Electrofusion Ancillary Tools**

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**Product: Manual Mechanical Re-Rounders**

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**MARCH 2019**



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Managing Director



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