


Uniprep 7 Rotary Scraping Tool

Operating Instructions

Product Code: 01-06-201

Revision: 02

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**Helping you
make the right
connections.**

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01. Introduction

General Description

The pipe preparation tool is designed to provide a fusible surface on any polyethylene pipe material (new, weathered or previously installed) in accordance with Gas Industry Standards GIS/PL2-5 Part 5 Electrofusion Ancillary Tools.

A small layer is removed from the pipe with each pass of this tool, this provides a suitable, fusible surface from which pipe welding can occur more easily.

This product (Caldertech Uniprep 7) has been manufactured, inspected and tested in accordance with the ISO9001 quality control systems and procedures in place at Caldervale Technology Ltd, Dewsbury.

The unit has rotating pre-set spring tension load indicator that is used to apply the correct load to the cutting tip around the whole pipe.



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 surface preparation 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.

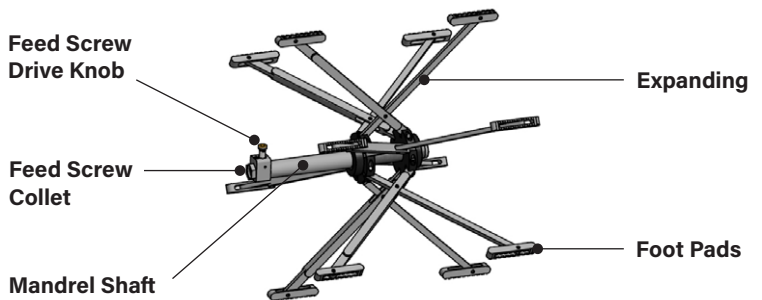
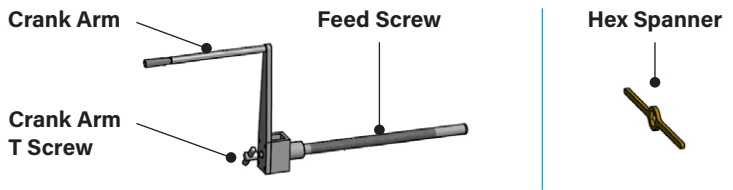
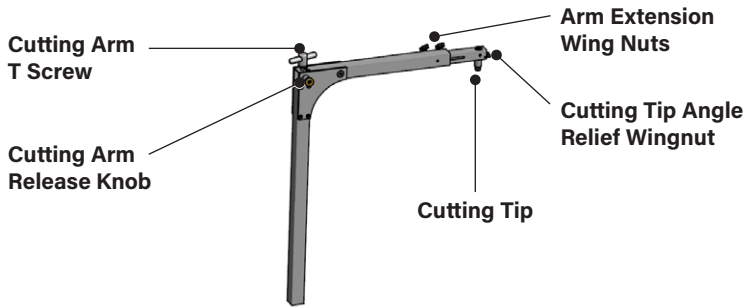
Before Using

It is important to ensure all component parts are present and in serviceable condition. In addition, the condition of the cutting / peeling tip should be checked for damage or excessive wearing.

02. Safety Instructions

1. Read and understand the whole instruction booklet before using the tool.
2. It is imperative that all possible precautions are made to avoid unexpected pipe movement when the tool is being used.
3. Never use the tool on pipes that are not within the specified dimensions.
4. The tool tip holder spring tension is factory set and **MUST NOT** be tampered with, without adequate training or instruction.
5. Operatives should wear eye protection, gloves, safety headwear and footwear when using the equipment.
6. A single scrape / pass cannot be guaranteed to provide 100% preparation, where this is required users are advised to consider making 2 scrapes around the pipe.

03. Operation



Familiarisation with the Tool

The tool is made up of 4 main parts:

1. A spring-loaded scraper arm which holds the blade within a load indicator.
2. A threaded shaft with crank handle for traversing the scraper;
3. A spanner to expand the body;
4. An expanding body to fix the tool axially in the pipe;

Pipe Preparation

1. Inspect the end of the pipe to be scraped to ensure it has no damage or deep scores and that it is externally clean.
2. Check that the pipe is round. Ovality should be reduced where possible. (Re-round with re-rounding tool if required).
3. Check that the end has been cut reasonably square.
4. Measure the insertion depth of the fitting and add on a minimum of 25mm (35mm recommended) to give a scraping witness. Mark the distance (from furthest protruding face of pipe end) and cross hatch that length of pipe with suitable pen such as white china pencil.

Using the Scraping Tool

Firstly, check the expanding body, ensure all parts are present and nothing is loose or hanging off the tool.

1. Insert expanding body of the tool into pipe making sure the feet are past the point of any pipe end regression with the Feed Screw collet outermost.
2. Using supplied hex spanner locate on Feed Screw Collet expand the body by turning anti-clockwise until very tight, aiming to leave the Feed Screw Drive knob uppermost. Once tight, remove the spanner.
3. Quarter turn the feed screw drive knob to raise and disengage the thread driver (if not already in position). Next fully insert the feed screw and engage the feed screw driver by turning the feed screw drive knob a quarter turn. Unscrew the crank arm T screw ready to receive the scraper arm.
4. Raise the crank handle and insert the scraper arm. (Note it is highly recommended to have the crank handle and scraper arm together in the same orientation to prevent injury from rotation of the tool) Lower the scraper arm until the scraper tip is approximately 6-10mm from the pipe surface and lock in position with the crank arm T screw.
5. Mark the position of the blade tip on the pipe to identify the point when the telescopic scraper arm is retracted. This mark is used to identify when the feed screw is nearing the end of the thread and to prevent the scraper arm falling out and/or being damaged.

6. Loosen the two arm extension wing nuts, extend the scraper arm until it reaches the witness marking and lock in position.
7. Ensure the angle relief wing nut is tightened and does not allow the tool tip cartridge to pivot then release the cutting arm release knob and lower the spring-loaded scraper arm and blade onto the pipe.
8. Use the cutting arm T screw to adjust the spring tension until the load indicator is set on top of the cutting tip (top of the cap head screw is flush with the round boss).
9. Slowly turn the crank handle clockwise to rotate the cutter once round the pipe whilst continually keeping an eye on the load indicator, adjust the spring tension if required to apply the correct load at the pipes lowest spot.
10. Double check the Feed screw driver is engaged on the shaft then begin scraping until the mark made earlier is reached.
11. At the point where the mark is reached release the blade tension (with the cutting arm T screw), lift and lock the arm (using the cutting arm release knob).
12. Disengage the feed screw drive knob and slide the feed screw back in to the start position. Re-engage the feed screw drive knob.
13. Loosen the two wing nuts, retract the arm to line up with the end of the scrape and lock in position.
14. Release the arm using the cutting arm release knob and adjust the spring tension until the load indicator is set. Continue to scrape keeping an eye on the load indicator on the first rotation; adjust tension as necessary to set it for any pipe lowest spot.
15. If the pipe being scraped has any pipe end regression the Cutting Tip Angle Relief Wingnut needs to be loosened to allow the cutting tip to remain in full contact with the pipe and give a good scrape.

Note: keeping an eye on the load indicator at this stage is essential to a good scrape
16. Continue until the scrape is complete.cutter on to the pipe wall surface and the correct pressure will be applied to the tip (6) via the tool tip spring.

04. Removal After Completion

1. Use the Cutting arm T screw to release blade spring tension.
2. Lift and lock scraper arm using cutter arm release knob.
3. Ensure the angle relief wing nut is tightened and does not allow the tool tip cartridge to pivot.
4. Release the feed screw drive knob and slide out feed screw and scraper arm and crank handle.
5. Separate scraper arm from crank handle using Crank Arm T Screw.
6. Use spanner clockwise to remove expanding body.
7. Ensure all parts are clean and dry.
8. Put all parts away in transport cases to protect them.



Storage

IMPORTANT! When not in use always:

1. Store the tool in the transport cases, ensure it is clean and dry before storage.
2. Ensure cutter tip will not get damaged when transporting or storing as this can severely limit the quality of the scrape.

Routine Maintenance

1. Check for correct movement and operation and lubricate moving parts at regular intervals before using.
2. It is important to ensure all component parts are present and in serviceable condition. In addition, the condition of the cutting / peeling tip should be checked for damage or excessive wearing.
3. The cutter tip can be replaced. Spares are indicated in the parts diagram.

05. Specifications

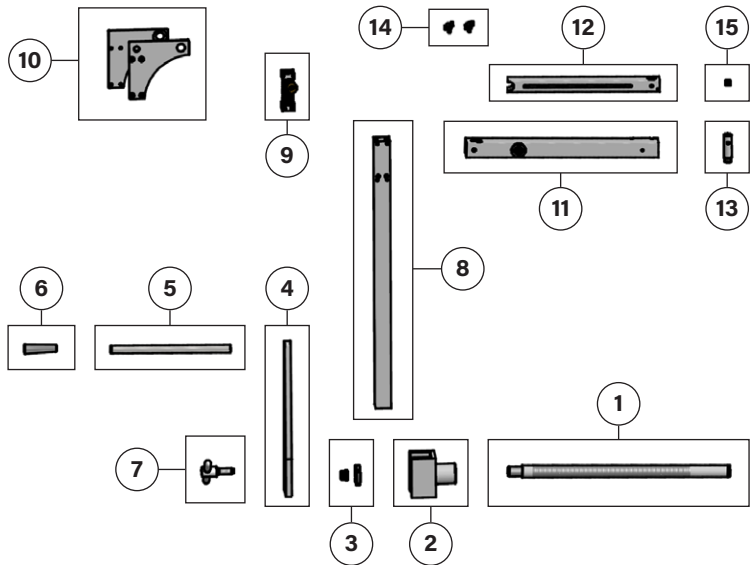
Materials:	Mild Steel EN3A, Stainless Steel, Nylon, Brass, Aluminum and Tungsten Carbide
Finish:	Natural / Zinc passivate to mild steel
Assembled Dimensions:	Max: H1300 x W1360 x D1300mm Min: H760 x W875 x D1275mm
Depth of Cut:	≤0.2mm
Min - Max Pipe Size:	630 - 1200mm All SDR Ratings
Weight:	23.85kg (Excluding packaging and transport cases)
Product Code:	01-06-201

This unit is design and manufactured to meet the requirements of National Grid Gas Industry Standards GIS/PL2-5 Part 5 Electrofusion and Ancillary Tooling.

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.

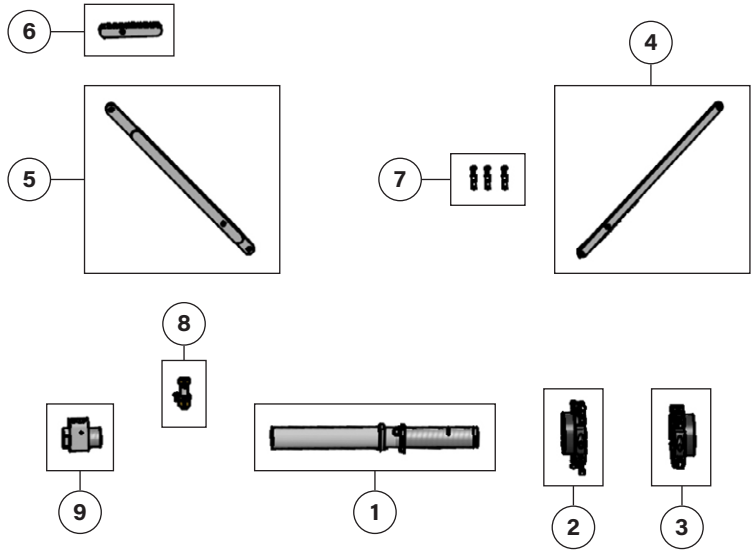
It is the responsibility of the operator to ensure that the PE pipe is suitable for pipe preparation if in doubt contact the PE pipe manufacturer for confirmation.

06. Cutter Arm Parts Diagram



Part	Product Code	Description
1	TBC	Feed Screw
2	TBC	Arm Slider Box
3	TBC	Clamping Pad and Screw
4	TBC	Handle Plate
5	TBC	Handle Shaft
6	TBC	Plastic Handle
7	TBC	T-Screw
8	TBC	Height Adjusting Arm
9	TBC	Load Cell
10	TBC	Side Supports
11	TBC	Cutter Arm Collet
12	TBC	Cutter Arm
13	TBC	Cutter Tip
14	TBC	Wing Screws for Cutter Arm Collet
15	TBC	Angle Relief Wing nut

07. Mandrel Parts Diagram



Part	Product Code	Description
1	TBC	Mandrel Shaft Inc Spacers
2	TBC	Plain Mandrel Collar
3	TBC	Threaded Mandrel Collar
4	TBC	Straight Leg
5	TBC	Slotted Leg
6	TBC	Foot Piece
7	TBC	Link Kit (Mandrel - legs, slotted leg - straight leg, leg - foot pad)
8	TBC	Feed Screw Drive (Quick Release)
9	TBC	Feed Screw Collet

08. Warranty Information

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.

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: _____

09. Certificate of Conformity



Certificate of Conformity

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

GIS/PL2-5:2018 Electrofusion Ancillary Tools

Uniprep 7 Rotary Scraping Tool

MARCH 2019

I. Smith
Managing Director



Caldervale Technology Ltd
Bretfield Court, Dewsbury, West Yorkshire WF12 9BG, UK
CRN 2769288 | ISO 9001:2015 Certified FM 30989

10. Service and Repair

This product has 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.

For service and repair please contact:

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11. Decommissioning and Disposal

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 pipe preparation 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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