

K Type Mains Clamp **63-250mm / 125-500mm**

Operating Instructions

REVISION: 01



Helping you make the right connections.

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01. Introduction

General Description

This manual outlines the operation of the Mains restraining clamps which are designed for restraining the movement of medium diameter pipes for the fitting of electrofusion couplers, elbows and reducers and Tees. They are designed to fit pipe sizes from 63mm through to 500mm dependant on model.

The clamps have adaptor plates which, when fitted, allow the installer the option to use electrofusion reducers with ease.

This product (Mains Clamp K Type) 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. The condition of the webbing straps should be inspected thoroughly prior to use, worn or frayed straps must be replaced immediately.

Broken or damaged tools, straps or mechanisms can be dangerous and should not be used without repair. If necessary see Parts page in this manual.



Important!

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

This manual 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.

02. Safety Instructions

1. Read and understand the whole booklet before using the tool.
2. It is imperative that all possible precautions are made to avoid unexpected movement of the tool and pipe during use.
3. Never use the tool on pipes that are not within the specified dimensions.
4. Operatives should wear eye protection, gloves, safety headwear & footwear when using the equipment.
5. Never attempt to use the straps if they are worn, frayed or damaged.

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

03. Variants

The K type mains clamp is a versatile piece of equipment. It can be used for several different applications. Below is a list of available variants which allow the clamp to be used in different ways:

Product Code	Description
01-16-001	2 x K Type Clamps 63-250mm, straight base
01-16-002	2 x K Type Clamps 63-250mm, angle maker base
01-16-003	3 x K Type Clamps 63-250mm 3-way
01-16-101	2 x K Type Clamps 125-500mm, straight base
01-16-102	2 x K Type Clamps 125-500mm, angle maker base
01-16-103	3 x K Type Clamps 125-500mm 3-way



2 x K Type Clamps, Straight Base
01-16-101



3 x K Type Clamps, 3-way
01-16-103

04. Bases and Accessories

Bases are the square shafts that allow the clamps to be aligned with each other or to allow angles to be made and hold the pipes at the specified angles.

Below is a list of bases and other accessories available for this clamping system:

Product Code	Description
01-15-029	63-250mm Clamp straight base only 600mm
01-15-068	63-250mm Clamp straight base only 750mm
01-15-069	63-250mm Clamp straight base only 1100mm
01-15-070	63-250mm Clamp straight base only 1500mm
01-08-240	125-500mm Clamp straight base only 750mm
01-08-241	125-500mm Clamp straight base only 1000mm
01-08-242	125-500mm Clamp straight base only 1200mm
01-08-243	125-500mm Clamp straight base only 1500mm
01-16-104	125-500mm 3-way Adaptor Kit only
01-16-004	63-250mm 3-way Adaptor kit only
01-16-105	125-500mm Reducing Plates

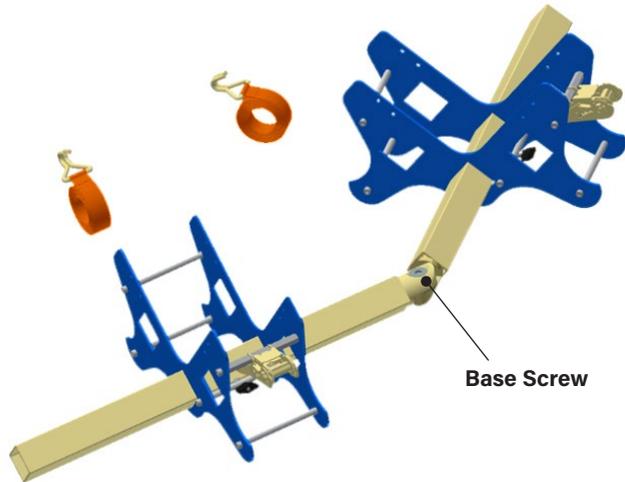


Reducing Plates

05. Operation

Prior to setting up the clamps the appropriate box section base should be selected.

Instructions for Angle Maker Base

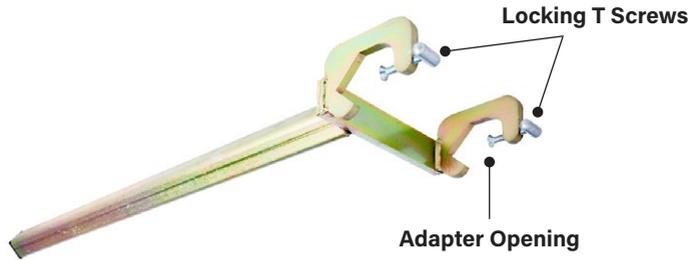


If an angled fitting is required an angle maker base should be used, and for a tee joint a three-way base adapter is available.

The angle maker base should be set up by:

1. First unscrewing the base screw with the provided Allen key.
2. Mate the ends of the bases at the appropriate angle and replace the countersunk screw and tighten it until the base pieces do not move separately. Do not overtighten as this may cause damage.

Instructions for 3 Way Adapter

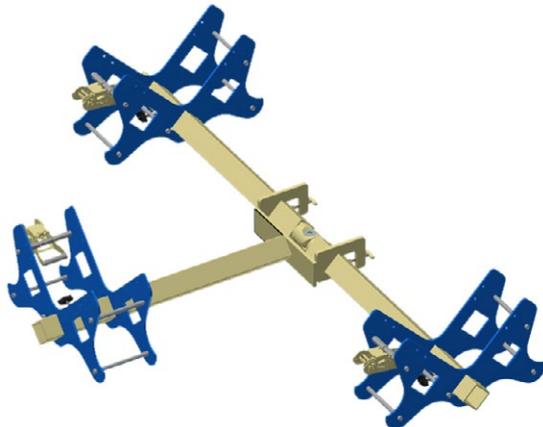


The 3 way adapter is an attachment that can be used in conjunction with any other base and is designed to attach to another base to give an extra base perpendicular to the base which it is attached.

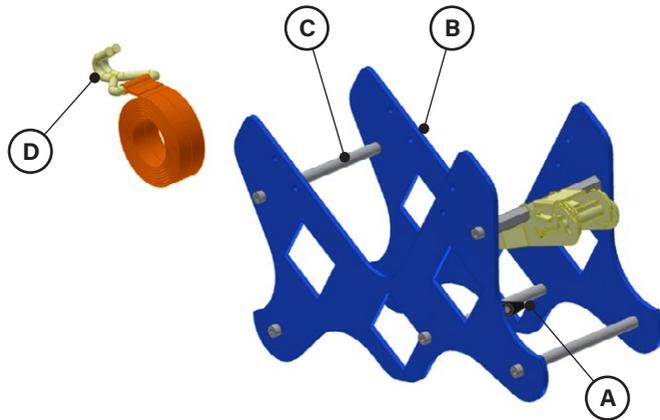
This is attached to any other base as follows:

1. Ensure the three-way adapters locking T screws are turned anticlockwise fully.
2. The opening of the adapter should then be placed over the base to which it will be attached.
3. The locking T screws should be tightened by turning clockwise until they are both tight on the other base.

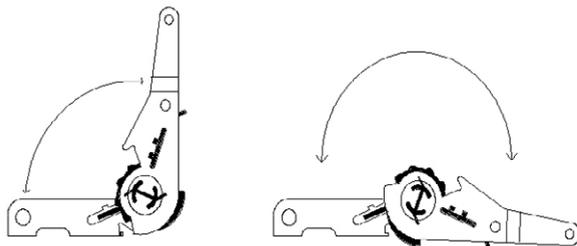
The 3 way adapter is now ready to accept clamps.



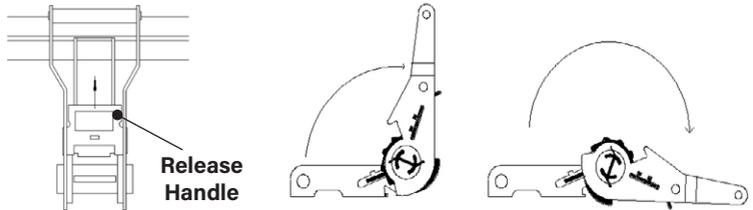
Instructions for Clamps



1. Insert the desired base (straight, angle maker or three way) into the central square hole of the clamp.
2. Ensure the base locking wing nut (A) is securely tightened to stop the clamp moving independently of the base.
3. Pipe is to be placed in the V atop the clamp body (B).
4. Once pipe is positioned and ready to be constrained the straps can now be attached by firstly placing the straps' steel hook (D) around the cross bar (C) that is located on the opposite side to the ratchet mechanism.
5. The strap should then be passed over the pipe to the ratchet mechanism and threaded through the slot in the central rotating part of the ratchet mechanism as much as possible.
6. Ensuring the strap does not slip back through the slot begin to operate the ratchet mechanism as indicated below until it tightens the strap sufficiently around the pipe



Removal



1. To release the strap pressure, operate the ratchet mechanism release handle and fully open the ratchet mechanism as shown above.
2. Remove the strap from the ratchet mechanism and the hook end can be removed from the clamp at this stage.
3. Release the base locking wing nut (A) by turning anticlockwise.
4. Slide clamp away from the base.



Storage

IMPORTANT! When not in use:

1. It is recommended that the strap is left attached to the clamp so that it is not misplaced.
2. If the strap is attached to the tool when not in use ensure that it is not over tightened so as to not add additional strain to the tool or strap.
3. Always ensure the tool is clean and dry before storage.
4. Always store in the tool bag (where provided).

Routine Maintenance

Check for correct movement and operation at regular intervals before using.

It is important to ensure all component parts are present and in serviceable condition. In addition, the condition of the straps should be regularly inspected thoroughly, checked for damage or excessive wearing prior to use, worn or frayed straps must be replaced immediately.

Broken or damaged tools, parts, straps or mechanisms can be dangerous and should not be used without repair.

06. Specifications 63-250mm Clamp

Materials:	Mild Steel EN1A, Mild Steel EN3A, Stainless Steel, Aluminium, Nylon, Ebonite
Finish:	Blue Powder Coating, Silver Zinc Plated, Natural
Pipe Range:	63-250mm

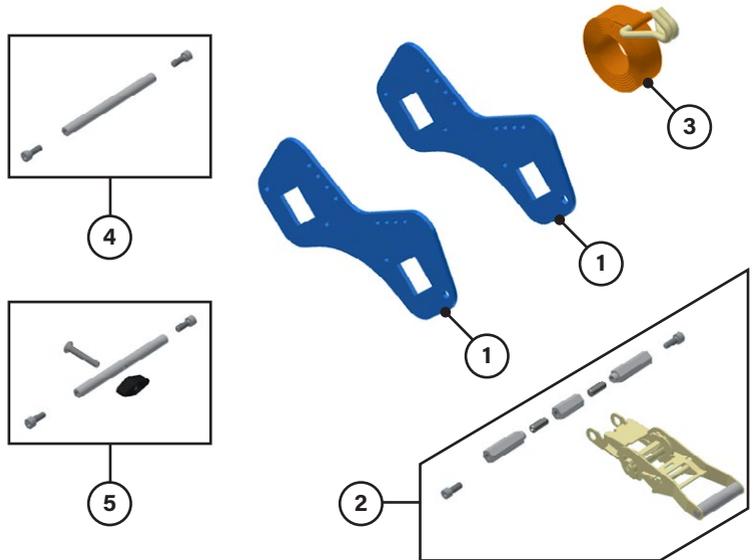
Product Code	Description	Dimensions	Weight
01-16-001	K Type clamp 63-250mm 2-way, straight base	910 x 340 x 270mm	10.8kg
01-16-002	K Type clamp 63-250mm 2-way, angle maker	940 x 370 x 230mm	13.2kg
01-16-003	K Type clamp 63-250mm 3-way	940 x 370 x 320mm	22.6kg

This unit is designed 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 this clamping system if in doubt contact the PE pipe manufacturer for confirmation.

07. Parts Diagram 63-250mm Clamp



Part	Product Code	Description
1	TBC	63-250mm K clamp profile plate (1 plate supplied)
2	TBC	Ratchet mechanism
3	TBC	Spare Strap
4	TBC	Cross bar repair kit
5	TBC	Cross bar incorporating base locking wing screw

08. Specifications 125-500mm Clamp

Materials:	Mild Steel EN1A, Mild Steel EN3A, Stainless Steel, Aluminium, Nylon, Ebonite
Finish:	Blue Powder Coating, Silver Zinc Plated, Natural
Pipe Range:	125-500mm

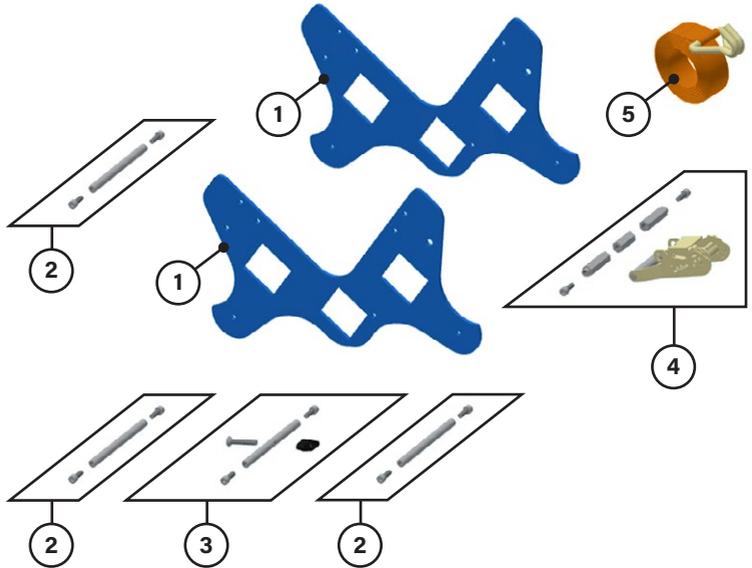
Product Code	Description	Dimensions	Weight
01-16-101	K Type clamp 125-500mm 2-way, straight base	940 x 370 x 230mm	22.4kg
01-16-102	K Type clamp 125-500mm 2-way, angle maker	940 x 370 x 280mm	30.5kg
01-16-103	K Type clamp 125-500mm 3-way	950 x 500 x 330mm	50.6kg

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09. Parts Diagram 125-250mm Clamp



Part	Product Code	Description
1	TBC	125-500mm K clamp profile plate (1 plate supplied)
2	TBC	Cross bar repair kit (1 cross bar, 2 cap head screws per kit)
3	TBC	Cross bar incorporating base locking wing screw
4	TBC	Ratchet mechanism
5	TBC	Spare strap

10. 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: _____

11. 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.

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12. 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 Mains Clamp 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.



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

Product: K Type Mains Clamp

MARCH 2019



I. Smith
Managing Director



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