Hy-Ram Engineering

User Manual, Operating Instructions and Specifications



Ø63mm-250mm & Ø125mm-500mm Strap Type Alignment Clamp

ELECTROFUSION

• INNOVATION • DESIGN • MANUFACTURE • SUPPLY

Hy-Ram Engineering

Pipe tool and equipment expertise

User Manual, Operating Instructions and Specifications

63mm-250mm & 125mm-500mm Strap Type Manual Positioning Clamp

Description	Product Code	Details
63mm-250mm Positioning Clamp	089-000629	2-Way Straight Base
63mm-250mm Positioning Clamp	089-000630	2-Way Angle Maker Base
125mm-500mm Positioning Clamp	089-000580	2-Way Straight Base
125mm-500mm Positioning Clamp	089-000581	2-Way Angle Maker Base
63mm-250mm 3 Way Adaptor Kit	089-000582	3-Way Clamps
125mm-500mm 3 Way Adaptor Kit	089-000721	3-Way Clamps



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Product description

The Hy-Ram strap type mains restraining clamps are designed for restraining the movement of medium diameter couplers, elbows, reducers and tees. They are designed to fit pipe sizes from 63mm to 500mm, depending on the unit selected. The clamps also have adaptor plates which, when fitted allow the installer the option to electrofuse reducers with ease.

Note:
No other uses are considered appropriate for this unit.
To use this unit for other purposes could lead to the unit being used for dangerous applications that may cause injury and could result in bad practice and poor-quality workmanship.
The information contained in these instructions is to assist with the safe installation, operation and maintenance of the equipment.
This information should be made available to all persons who are required to work with or on the equipment.

Future amendments issued by Hy-Ram Engineering Co. Ltd. should be attached to this document.

In the case of any doubt with any aspect of this equipment, including the application, safe use and instructions within this document; contact for clarification and advice.

Health and Safety Introduction

This document explains about the tool and how to use and maintain it and should be available to all persons who are likely to use or work with or on the tool. Understand the following statements before using the tool.

Warning	Informs of hazardous conditions which may cause bodily harm
Caution	Informs of conditions which may cause damage to the equipment
Notes	Explains additional or helpful information

Warning

- Only us the unit for the application described in these instructions.
- Using this unit for any other purpose could lead to injury and/or undesirable quality.
- Wear appropriate Personal Protective Equipment (PPE). Gloves, safety eyewear, safety headwear and safety footwear are mandatory.
- The information contained in these instructions is to assist with the safe installation, operation, and maintenance of the equipment.
- Future amendments by Hy-Ram Engineering Co. Ltd. will be in this document.
- In the case of any doubt with any aspect of this equipment, including the application, safe use, and instructions within this document; contact for clarification and advice.

Caution

- Ensure all component parts are present and in serviceable condition.
- Take precautions to avoid unexpected pipe movement.
- Always use in accordance with approved site operating procedures, approved by the network/asset owner/water company, in line with relevant industry standards and procedures.
- A trapping risk exists from the moving parts coming together.
- Due to the mass of the components (see ***Specification***) the correct manual handling practice should be observed along with the use of appropriate PPE, see ***Warning*** above.
- Compliance with Noise at Work regulations should be observed along with the use of appropriate PPE, see ***Warning*** above.

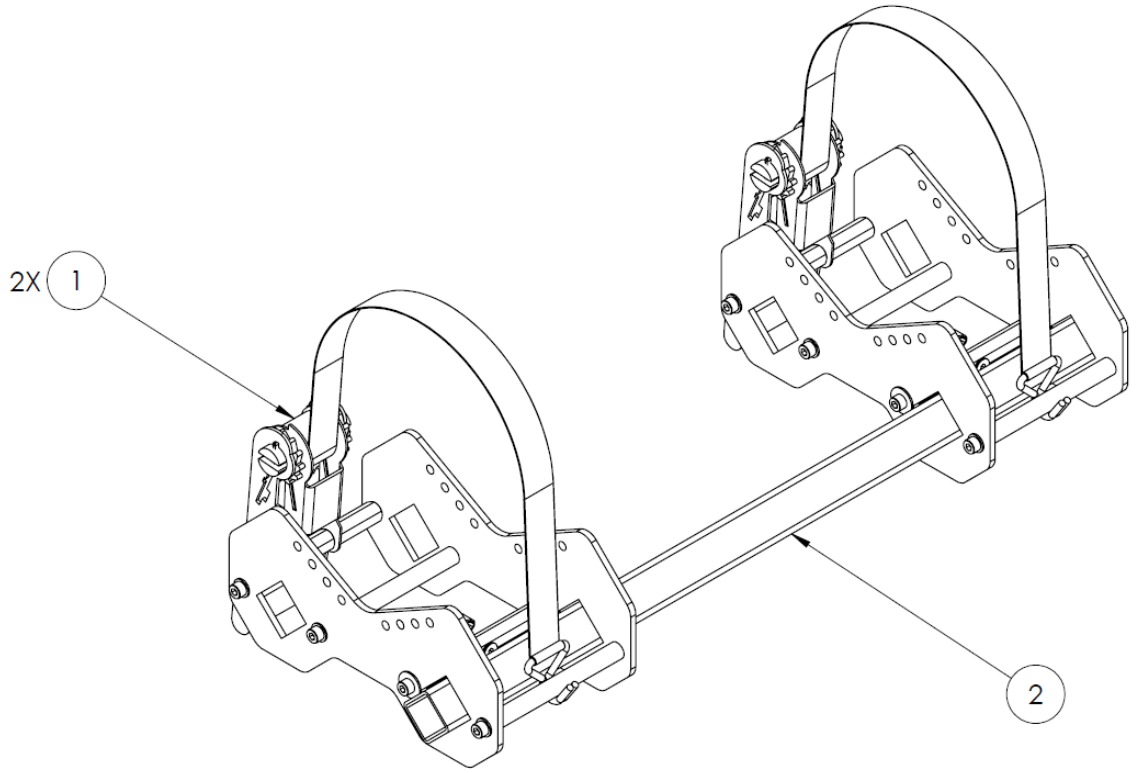
Notes

- It is important to ensure that all component parts are present and in a serviceable condition.
- Read ALL instructions and safety information before attempting to use the tool i.e. First Use.
- The units weigh up to 48.6Kg, so care should be taken when lifting.
- Operatives should wear eye protection, gloves, safety headwear and footwear when using this equipment.

Photo Gallery

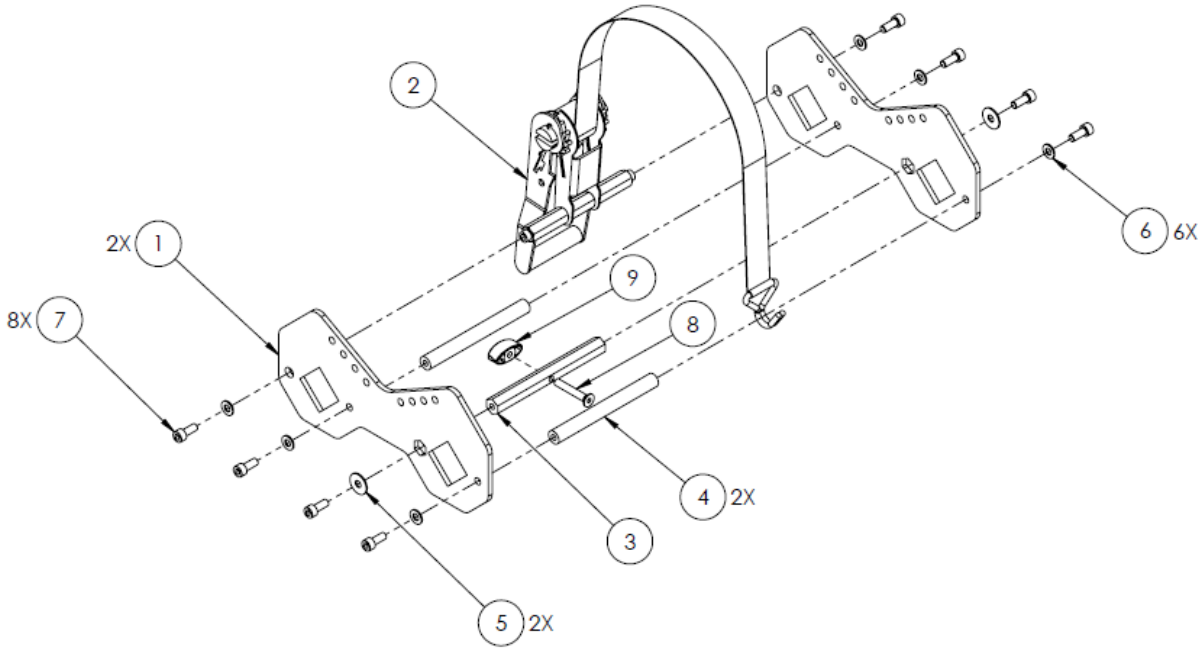


63mm – 125mm Strap type manual positioning clamp



Component Part Numbers

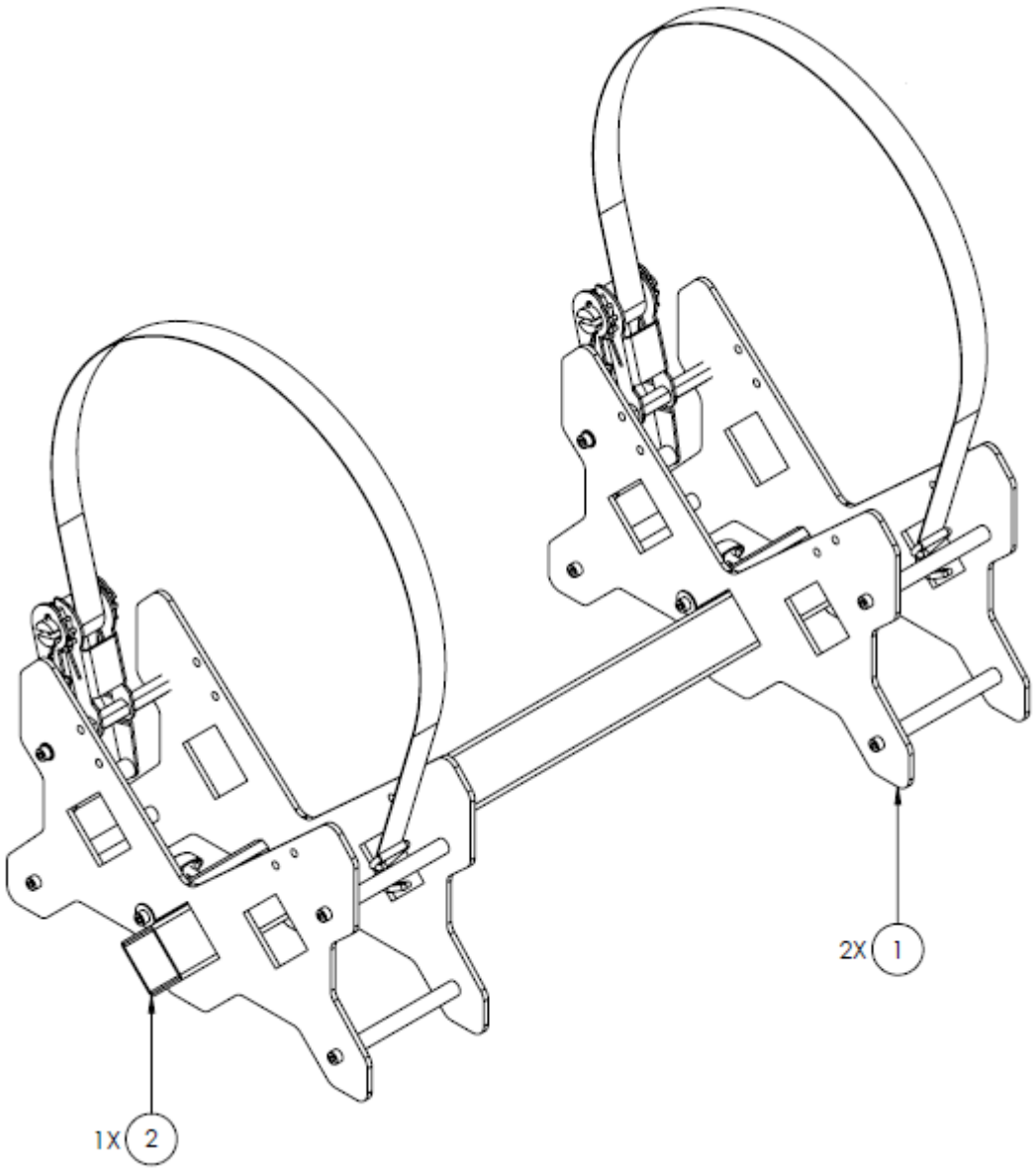
ITEM NO.	Part No	Description	QTY
1	089-000716	STRAP CLAMP BASE ASSY	2
2	023-000360	CONNECTING BAR	1



Component Part Numbers

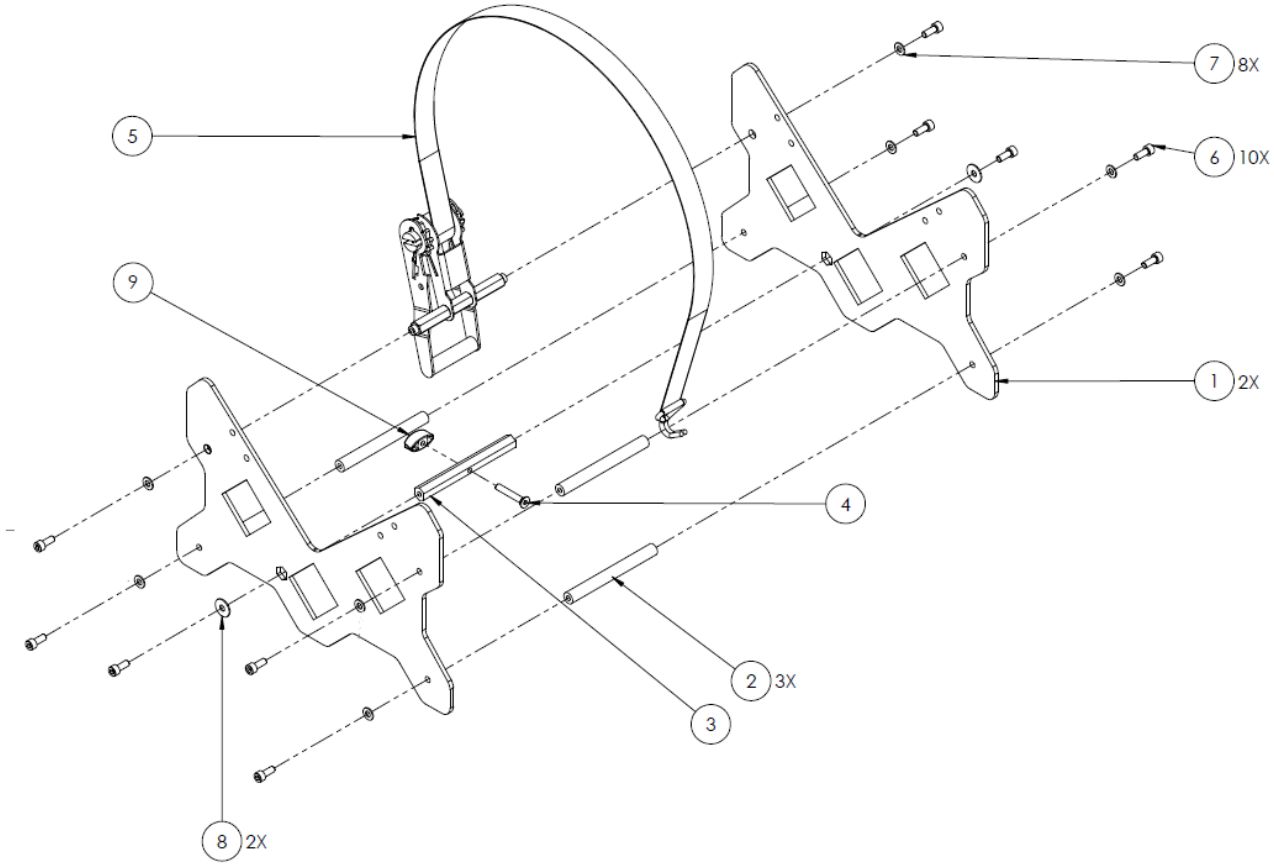
ITEM NO.	Part No	Description	QTY
1	645-000390	BASE SIDE PLATE	2
2	022-000011	RATCHET STRAP ASSEMBLY	1
3	023-000338	CONNECTING CROSS BAR	1
4	023-000339	SPACER BAR	2
5	760-000139	M8 x 25mm REPAIR WASHER	2
6	760-000088	M8 PLAIN WASHER	6
7	SCRW-M8x20mmCAPBZP	M8 x 20mm HEX SOCKET CAP HEAD SCREW	8
8	SCRW-M8x50mmCSKBZP	M8 x 50mm HEX SOCKET COUNTERSUNK SCREW	1
9	023-000360	CONNECTING BAR	1

125mm – 500mm Strap type manual positioning clamp



Component Part Numbers

ITEM NO.	Part No	Description	QTY
1	089-000708	STRAP CLAMP BASE ASSY	2
2	023-000337	CONNECTING BAR	1



Component Part Numbers

ITEM NO.	Part No	Description	QTY
1	645-000379	BASE SIDE PLATE	2
2	023-000339	SPACER BAR	3
3	023-000338	CONNECTING CROSS BAR	1
4	SCRW-M8x50mmCSKBZP	M8 x 50mm HEX SOCKET COUNTERSUNK SCREW	1
5	022-000011	RATCHET STRAP ASSEMBLY	1
6	SCRW-M8x20mmCAPBZP	M8 x 20mm HEX SOCKET CAP HEAD SCREW	10
7	760-000088	M8 PLAIN WASHER	8
8	760-000139	M8 x 25mm REPAIR WASHER	2
9	171-000151	THUMB KNOB	1

Specification

Materials	
Mild Steel	S275
Mild Steel	080A15
Steel Box Section	S355

Finishes	
Steel Surfaces	Zinc Plating / Powder Coating

Pipe Size Capacity	
Maximum Pipe Diameter	Ø250mm / Ø500mm
Minimum Pipe Diameter	Ø63mm / Ø125mm

Marking	
Steel Parts	DOT Matrix Engraved / Stickers

Dimensions & Weight	
089-000629	L 800mm x W 320mm x H 152mm x 11.7Kg
089-000630	L 1100mm x W 320mm x H 152mm x 15.2Kg
089-000580	L 1000mm x W 490mm x H 304mm x 23.9Kg
089-000581	L 1250mm x W 490mm x H 304mm x 30.4Kg
089-000582	L 870mm x W 320mm x H 152mm x 23.9Kg
089-000721	L 1170mm x W 490mm x H 304mm x 48.6Kg

Standards

The tool is designed and manufactured using the following design principles.

Safety of Machinery
BS EN ISO 12100:2010 Safety of Machinery - General principles for design. Risk assessment and risk reduction.

Relevant Industry Standard
This unit is design and manufactured to meet the requirements of National Grid Gas Industry Standards GIS/PL2- 5:2018 Electrofusion ancillary tooling.

Operating Instructions: 2 way equal ended straight / angled joints

Operation		
1		Ensure ALL maintenance and service checks have been carried out.
2		Attach the two strap clamp base assemblies to the connecting bar via the diamond shaped holes. Slide them to the desired spacing and secure in place using the thumb screws.
3		Operate the tensioning ratchets to release the webbing straps and lay the pipes into the vees of the base assembly. If an angle or elbow coupler are being used, the base bars should be set to the desired angle and locked in position with the pivot screw. Similarly, if a straight coupler is used, the base bars should be set at 180° and locked in position.
4		After assembling the pipes and coupler in the clamp, pass the webbing straps over the pipes and into the ratchet tensioner. Operate the ratchet tensioners to position and secure the pipe and coupler assembly. The electrofusion process can now be completed.
5		To remove the clamps, operate the ratchet tensioners to release the straps.

Operating Instructions: 2 way equal ended tee joints

Operation		
1		Ensure ALL maintenance and service checks have been carried out.
2		Assemble the clamp for a straight joint as described above, but do not put the pipes into the base assemblies yet. Attach the 3 way adaptor base assembly to the connecting bar centrally under the joint to be made. Tighten in place with the two locking screws.
3		Operate the tensioning ratchets to release the webbing straps and lay the pipes into the vees of the base assembly.
4		After assembling the pipes and coupler in the clamp, pass the webbing straps over the pipes and into the ratchet tensioner. Operate the ratchet tensioners to position and secure the pipe and coupler assembly. The electrofusion process can now be completed.
5		To remove the clamps, operate the ratchet tensioners to release the straps.

Product Calibration

This product has no calibration requirement. Periodic safety inspections should be carried out by the operator if in any doubt please contact the manufacturer for further information.

Storage and Maintenance

- Store the tool in a dry and clean environment.
- The unit should be periodically serviced as per
- *Service* Schedule.
- There are no internal wear parts for the user to change.

Service Schedule

Before each use
Visual check

CE

EC DECLARATION OF CONFORMITY

1. Product description: Electrofusion alignment clamp

   Make: Hy-Ram
   Type: 63mm-250mm & 125mm-500mm Strap type alignment clamp

2. Manufactured by: Hy-Ram Engineering Co. Ltd., Pelham Street, Mansfield, Nottinghamshire, NG18 2EY.
3. This declaration is issued under the sole responsibility of the manufacturer.
4. The manufacture declares that the following machinery complies with the essential health and safety requirements of the Machinery Directive 2006/42/EC enacted in the United Kingdom by The Supply of Machinery (Safety) Regulations 2008.
5. This machinery has been designed and manufactured in accordance with the following transposed harmonised European standards or references to the other technical specifications in relation to which conformity is declared. The machinery complies with or is designed and manufactured so far as is possible to comply with the relevant essential health and safety requirements, taking into account the state of threat.

   - BS EN ISO 12100:2010 Safety of Machinery - General principles for design. Risk assessment and risk reduction.
   - BS EN ISO 13857:2008 Safety of Machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs.
   - BS EN 349:1993+A1:2008 Safety of Machinery – Minimum gaps to avoid crushing of parts of the human body.
   - GIS/PL2-5:2018 Electrofusion ancillary tooling.

6. A technical construction file for this machinery is retained at the address of the manufacturer stated above. Modifications to the equipment without prior written approval by the undersigned will render this declaration null and void.
7. The manufacturer applied the procedure for assessment of conformity with internal checks on manufacture. A conformity assessment body was not involved.
8. The technical documentation for the machinery is retained at the address of the manufacturer stated above.
9. Modifications to the equipment without prior written approval by the undersigned will render this declaration null and void.

For and on behalf of the manufacturer:
[Authorised representative of Hy-Ram Engineering Co Ltd].

Signature: *L Bullock-Jones*

Name: Lee Bullock Jones
Position: Technical Director
Date: 12th October 2026

Signature of this Declaration of Conformity authorises the manufacturer or his authorised representative to affix the CE mark to the equipment.

UK DECLARATION OF CONFORMITY

1. Product description: Electrofusion alignment clamp

   Make: Hy-Ram
   Type: 63mm-250mm & 125mm-500mm Strap type alignment clamp

2. Manufactured by: Hy-Ram Engineering Co. Ltd., Pelham Street, Mansfield, Nottinghamshire, NG18 2EY.
3. This declaration is issued under the sole responsibility of the manufacturer.
4. The manufacture declares that the following machinery complies with the essential health and safety requirements of the Machinery Directive 2006/42/EC enacted in the United Kingdom by The Supply of Machinery (Safety) Regulations 2008.
5. This machinery has been designed and manufactured in accordance with the following transposed harmonised European standards or references to the other technical specifications in relation to which conformity is declared. The machinery complies with or is designed and manufactured so far as is possible to comply with the relevant essential health and safety requirements, taking into account the state of threat.

   - BS EN ISO 12100:2010 Safety of Machinery - General principles for design. Risk assessment and risk reduction.
   - BS EN ISO 13857:2008 Safety of Machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs.
   - BS EN 349:1993+A1:2008 Safety of Machinery – Minimum gaps to avoid crushing of parts of the human body.
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For and on behalf of the manufacturer:
[Authorised representative of Hy-Ram Engineering Co Ltd].

Signature: *L Bullock-Jones*

Name: Lee Bullock Jones
Position: Technical Director
Date: 12th October 2026

Signature of this Declaration of Conformity authorises the manufacturer or his authorised representative to affix the CE mark to the equipment.

Hy-Ram Engineering

Pipe tool and equipment expertise

Certificate of Conformity

This Certificate of Conformity certifies that the product detailed below has been designed, manufactured, inspected, and tested in accordance with our NQA approved:

Quality Management System ISO 9001:2015
Environmental Management System ISO 14001:2015
Occupational Health & Safety Management System ISO 45001: 2018

Product:
63mm-250mm & 125mm-500mm Strap type alignment clamp

The product conforms to the following standards:

Safety of Machinery BS EN ISO 12100:2010 Safety of Machinery
General principles for design. Risk assessment and risk reduction.

GIS/PL2- 5:2018 Electrofusion ancillary tooling
This unit is design and manufactured to meet the requirements of National Grid Gas Industry Standards.

Date: **12th October 2026**

Note! This product has no calibration period and periodic safety inspections should be carried out by the operator.
For further information contact the manufacturer. www.hyram.com

L Bullock-Jones

Lee Bullock Jones
Technical Director

PRODUCT CONFORMITY Hy-Ram Engineering Mansfield, England U.K.

Hy-Ram Engineering Co. Ltd.
Pelham Street
Mansfield
Nottinghamshire
NG18 2EY

Certificate of calibration

- This product has been designed, manufactured, inspected, and tested in accordance with our NQA ISO 9001:2015, NQA ISO 14001:2015 and ISO 45001:2018 systems.

Decommissioning & Disposal Instructions

- If a Hy-Ram product has reached the end of its useful working life dispose through a licensed scrap or waste disposal facility.
- Decommissioning and disposal are the responsibility of the customer. Take the product out of service safely and in compliance with essential Health and Safety requirements.

Warranty.

Extent of Warranty.

In the case that this product does not meet quality or performance expectations then Hy-Ram will replace the product to the customer's satisfaction. Hy-Ram will guarantee this product against breakage or defective workmanship for one year.

This guarantee is not valid in cases of abuse or exceptional damage beyond reasonable expectations or where incorrect use, or care of the product has occurred as described in the user manual and instructions. Additionally, the guarantee is not valid in cases of unauthorised modification, misuse, or any use not in accordance with the operating manual and good industry practice, operation outside the products specifications, improper site preparation or maintenance or when using with faulty pipe or fittings. Hy-Ram does not warrant the operation of any product to be uninterrupted or error free.

Any warranty or condition implied by law, shall be the replacement or parts, without charge, which are defective in material or workmanship, and which have not been misused, carelessly handled, or mis-repaired by persons other than the manufacturer or an Authorised Service Centre.

Hy-Ram Engineering Co Ltd offer a 1 year from date of despatch warranty only against defects in workmanship and materials. This limited warranty does not apply to any refurbished or reconditioned equipment and is non-transferable and subject to the conditions and limitations set forth herein. The standard Terms and Conditions of trade form part of this warranty.

Hy-Ram Engineering Co Ltd will, at its option, repair or replace (with a new or reconditioned unit of like condition).

All warranty work will be by Hy-Ram Engineering Co Ltd unless otherwise agreed or by authorised Hy-Ram Engineering Co Ltd service facilities.

If replacement parts are used in making repairs, these parts may be remanufactured or contain remanufactured materials.

In returning the product for repair, send in its original packaging or in packaging offering a sufficient degree of protection. With the product must be evidence of the date of purchase (see also the form at the rear of this document). Hy-Ram will not be responsible for any loss or damage incurred in connection with the return of the product. 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. To the extent allowed by local law, the remedies provided in this warranty statement are the customer's sole and exclusive remedies. This tool has been designed for the range of pipe and fittings commercially available at the time of its design and development. Hy-Ram Engineering Co Ltd can accept no liability for the unit's ability or otherwise to work with new or different fittings that are subsequently introduced to the market.
The foregoing limited warranty is Hy-Ram Engineering's only warranty with respect to the product and Hy-Ram makes no other warranty whatsoever, written, or oral, express, or implied, regarding the product, including without limitation any warranty of merchantability, fitness for a particular purpose or non-infringement. In no event will Hy-Ram or its authorised dealers be liable for any loss of profits or special, consequential, or incidental damages even if such damages result from negligence or other fault.

Upon purchase, please complete the original purchase record below and keep it safely with your proof of purchase receipt. You will require it for any warranty claim.

Product Record (for any warranty claim)	
Company name and location	
Date of purchase	
Name and address of purchaser	
Type of tool	**Strap type alignment clamp**
Serial number (if applicable)	

Annex

Note: Hy-Ram Engineering Co. Ltd. operate a policy of continual improvement and therefore reserves the right to modify product specifications without notice.

Revision Table

Version	Details	Section / Page	Date
V1.26	Original version	-	12th October 2026

Manual Handling

Please see the UK Health and Safety Executive for further guidelines regarding Manual Handling best practice.

- https://www.hse.gov.uk/msd/manual-handling/index.htm

Contact Hy-Ram

For service and repair please contact:

Hy-Ram Engineering Co. Ltd.
Pelham Street
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NG18 2EY
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www.hyram.com

Hy-Ram Engineering

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ELECTROFUSION

For Sales, Hire and Repair support contact our admin team or scan the QR code for further details

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