



**Hy-Ram**  
Engineering

# CORE PRODUCTS

2018/19



Pipe tool and equipment expertise



# Welcome to... Hy-Ram Engineering Co. Ltd



Every effort has been made to make the information in this brochure as accurate and up-to-date as possible. Hy-Ram operates a policy of continuous improvement and therefore reserves the right to modify product specifications without notice. All products supplied are subject to Hy-Ram 'conditions of sale' or 'conditions of hire', copies of which are available on request. If you have any questions relating to the products or services in this brochure, please contact our Sales Office On +44 (0)1623 422982.

## Precision engineering since 1976...

Formed in 1976, Hy-Ram Engineering Co. Ltd has established itself as a leading design and manufacturer of specialist tools and equipment for both plastic and metallic distribution pipelines... worldwide!

Principally working across water, gas, wastewater, landfill and industrial sectors, Hy-Ram provide a range of products and services essential for the provision, jointing, installation and maintenance of utility distribution networks.

Hy-Ram's core product range includes Automated Butt Fusion and Electrofusion equipment, Underpressure Drilling equipment, Squeeze off and Pipe Cutting equipment.

'In-house' developments of specialist Water Valves and Fittings have further diversified our comprehensive product range.

In addition, Hy-Ram also work collaboratively with 'key' partners, an element of this is our alignment with 'brand leading' suppliers in order to distribute the 'complete utility tooling package'.

Much of Hy-Ram's success is attributed to our reputation for good quality and well engineered products... manufactured and produced at competitive prices. To achieve this reputation, for many years, Hy-Ram has engaged with major worldwide Gas and Water companies and has developed into an important supplier to the UK utility sector and the wider International markets.

Hy-Ram's headquarters and principle manufacturing site is located in Mansfield, England. Equipment is available for Purchase or Hire from our National Sales Team, UK Depot Network or via one of our Authorised Overseas Distributors.

*Hy-Ram is associated with a number of industry trade organisations designed to influence and improve industry procedures, safe practice, equipment specification and innovation.*

*Hy-Ram is proud to be associated with...*





# Innovation...

## Specialist knowledge for smart solutions...

Hy-Ram has a dedicated innovation and development team. We develop all our solutions in-house, utilising 3-D modelling and making use of CAD, FEA and CAM techniques.

Over our 40 year history, Hy-Ram has successfully developed and implemented a wide range of equipment and tools for the water and gas industries.

Adopting a collaborative approach, we work closely with our customers to understand specific needs and weaknesses with current tooling, procedures and site practices.

Hy-Ram's objective is to challenge convention in terms of existing products and methodology and develop new innovative ideas. The overall aim being to make work easier, safer and more efficient for the installer coupled with less interruptions, better security of supply and an improved overall network for the asset owners.

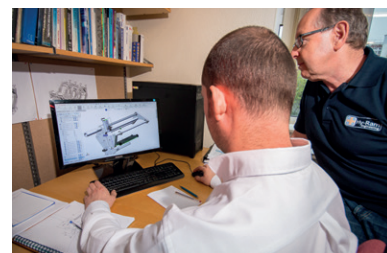
Let us challenge the way that you work...!

## Hy-Ram's commitment to quality and our environment...

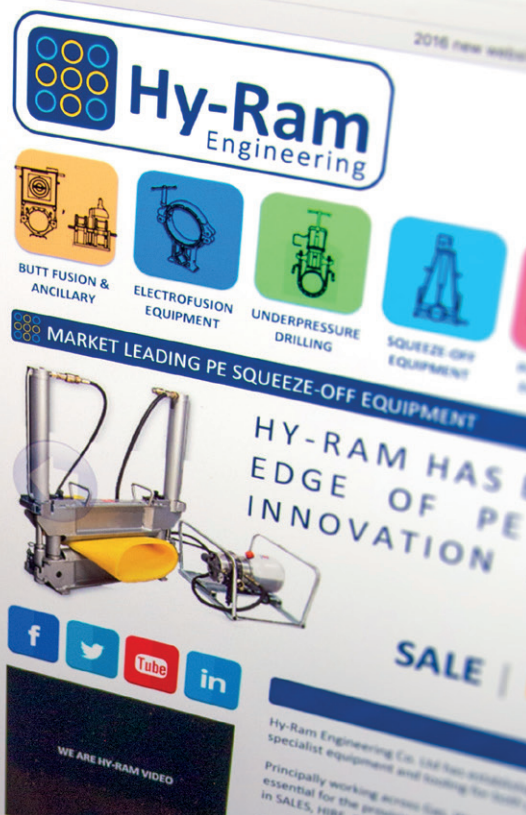
Hy-Ram continues to build on over 40 years of experience by investing in systems, resources and above all the specialist skills and dedication of our personnel.

Hy-Ram are accredited by LRQA to BS EN ISO 9001:2015 Quality Management system and understand the necessity of implementing strict procedures to control both quality and service. The scope of our approval covers all aspects of our business... 'The design, manufacture, sale, hire and repair of tools, equipment and other associated products applicable to the gas, water and industrial markets'.

Hy-Ram take seriously our responsibility to make our day to day operations more sustainable. To help us with this cause, we are accredited by LRQA to BS EN ISO 14001:2015 Environmental Management system. Our procedures cover multiple aspects of the business including product development and manufacturing, procurement, storage, waste and distribution... every effort is always made to reduce and minimise our impact on the environment.







# Hy-Ram on the move!

## We are... where you need us to be...

Our Sales and Technical teams can offer you a tailor made introduction or demonstration of our product range. This can take place in our training facilities at either our Mansfield Head Office or at our London offices.

### Hy-Ram on the move: Rolling roadshow, Demonstration trailer

If you prefer, we can arrange for our demonstration trailer to visit your premises to give either a general overview of our products or we can theme the day on a specific product or group of products.

This has been proven to be very beneficial in that your staff can be updated and get 'hands-on' with the latest product developments without leaving the confines of your premises. Tailored 'on-site' technical training and video workshop sessions can also be run from the trailer.

### Hy-Ram on the move: Sales Vans

Hy-Ram now has a technical sales van calling in your area. Fully stocked with essential tools and consumable items, we can arrange for a van to call at your premises or to site. The driver is fully trained and experienced and can advise on the best tools and equipment to suit your needs. Mini 'Toolbox' training sessions can also be carried out all free of charge and all on your doorstep.

In addition, the van is utilised for collecting equipment requiring repair or recalibration... offering a quick and convenient way of ensuring your plant is properly serviced and ready for use!

### Catch up with us via Social Media

In addition to checking out our great product range, our website offers the opportunity for you to get connected with Hy-Ram. You can browse our latest product innovations and news sections regarding exhibitions and where you can find us!

You can also keep in touch via Facebook, Twitter and LinkedIn... additionally our site also provides links to YouTube so you can keep up to date and view our latest product application videos.





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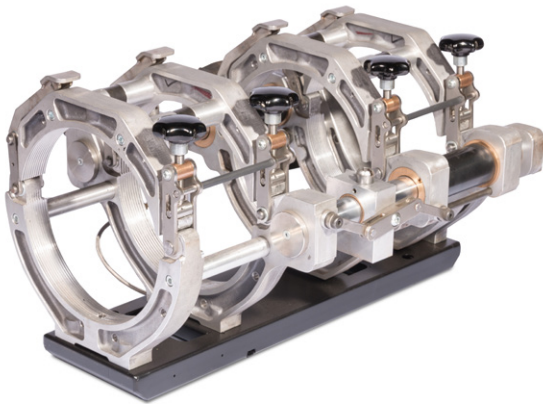


## Butt Fusion Equipment

# WeldMaster Machine Range



*WM 250 WeldMaster Fully Automatic Butt Fusion Machine*



### **WeldMaster Butt Fusion Machines: Range 63 – 400mm diameter**

Hy-Ram has designed and manufactured high quality Butt Fusion Equipment for the world-wide market since the early 1980's. Our latest WeldMaster range takes the Fully Automatic machine to the next level in terms of control, quality, connectivity, usability and smart technological features.

The WeldMaster brings together a range of machines packed with practical mechanical design and technologically advanced software features... all accessible from an intuitive new full-colour 7" TFT touchscreen interface.

The machines offers the user simplistic operation whilst the functionality of the software automatically enables and records a host of smart features and information... accessible only if you need them!

We continue with our design of the Controller, Chassis, Trimmer and Hotplate being separate 'modular' units providing maximum flexibility and a machine best equipped for either in-trench or out of trench welding.

The range maintains the normal durability and reliability synonymous with Hy-Ram machines for over 30 years... the WeldMaster will continue our tradition in order for both sales and hire customers to take advantage!

### **Key features**

- Integrated RFID reader – monitoring training status and Operator ID
- Touchscreen - 7" TFT Intuitive User Interface
- Menu driven data entry plus touchscreen 'QWERTY' Keypad
- Bluetooth connectivity for Smartphone Apps and BDI tool
- USB Connectivity
- Embedded GPS for precise weld location stored with each joint record
- 'Scroll-back' On-screen review of all joint data
- Simple Text and Animated Graphical representation of 'Next-step' during welding cycle
- Internal Memory for in excess of 1 million Joint Records
- Option of Bespoke Joint Data Analysis Software
- Programmed with UK and International Welding Standards
- Programmed for 3 Different Types of Plastic Materials
- Automatic 'Dummy' Weld Cycle when welding to the WIS Standard
- Early Warning Error Messages
- On board Diagnostic & Calibration software - Graphically driven for simplicity
- Customisable for Owner's Logo on 'start-up' screen
- Customisable for welding of non-standard or 'special' pipe
- Option for barcode Reader
- Options for different International languages
- Configurable for 'Pupping' / Welding of PE Fittings



# WeldMaster Machine Range

	WeldMaster Butt Fusion Equipment									
Model Designation	WM180		WM200		WM250		WM315		WM400	
Diameter range (mm)	63 - 180		63 - 200		63 - 250		90 - 315		160 - 400	
Product Code	903-33	903-34	903-41	903-42	903-35	903-36	903-37	903-38	903-39	903-40
Nominal Input Voltage (V)	110	220	110	220	110	220	110	220	110	220
Input Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Generator Rating (KVA)	4.5	4.5	4.5	4.5	5.0	5.0	6.0	6.0	7.5	7.5



*WeldMaster Controller / Power Unit*

## Controller / Power Unit

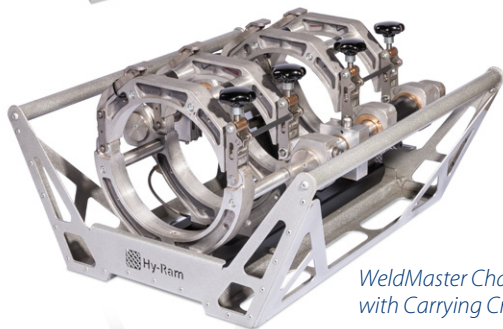
- 7" TFT Touch screen Colour display
- Bluetooth connectivity for Smartphone Apps and BDI tool
- USB socket
- Automatic recognition of size of Chassis connected
- Interchangeability of Controller / Power Unit with any size machine
- Pipe Options automatically limited to range of size of Chassis
- Integrated ambient temperature measurement and compensation
- Static and dynamic drag detection
- Powerful 100 Bar maximum operating pressure
- Pipe slippage and early clamp removal detection
- 1 million+ memory storage with multiple download options
- Bespoke joint data analysis software
- Compact and lightweight unit with convenient carrying handles
- Quick Release hydraulic hose connections
- Durable 'Military' electrical connections
- Durable Lid to protect Fascia

## Chassis

- Hy-Ram derived 'centreline' acting hydraulic cylinders
- Removable carrying Cradle for 'tight' operating conditions
- Lever operated tightening of Top Clamps for faster clamping
- Can be converted on site for welding fittings
- Central Linkage to ensure Centre Block symmetry

## Hotplate

- Quick Dwell time, rapid Hotplate retraction and symmetrical pull-off
- Easily replaceable PTFE Hotplate Faces
- Automatic 'power-off' whilst Trimmer is in operation to minimise Generator power
- Quick release fasteners
- Trimmer / Hotplate Stand



*WeldMaster Chassis with Carrying Cradle*



*WeldMaster Hot Plate*





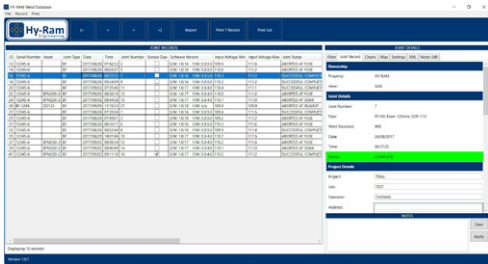
# WeldMaster Machine Range

WeldMaster  
Trimmer



## Trimmer

- Automatic start from within joint cycle
- Automatic Trim and Feathering cycle for smooth pipe ends
- Integrated Micro-switch to prevent inadvertent use when off of Chassis
- Optimised Trimmer Blade geometry
- Quick release fasteners
- Trimmer / Hotplate Stand



WeldMaster Bespoke  
Joint Data Analysis  
Software

## Hy-Ram WeldMaster Joint Data Analysis Software

Hy-Ram's bespoke Data Analysis software enables the download of Joint data onto a USB memory device. This joint information can then be uploaded onto a PC or tablet and allows the operator to view and interrogate joint information. The system allows for filtering on multiple criteria including operator, machine, joint status, project etc. It also has a unique maps section in order to pinpoint joint locations.

### Key Features

- Joint Record Storage from multiple WeldMaster machines
- Easy and convenient filtering of all aspects of weld data via drop down menu's
- Bar-chart representation of key welding criteria
- Data can be accessed via multiple PC's
- Welder details kept with the joint produced
- Automatic 'flagging' for calibration due
- Software log to record/monitor software revision level
- Each joint GPS location visually represented on a map
- Pipe material and Diameter usage figures
- Errors and faults recorded
- Reports produced in PDF and Excel formats with 'quick button' for emailing



## Hy-Ram WeldMaster – now can be configured to be 'ControlPoint ready' as standard!

Want your machine ControlPoint enabled? No problem! The WeldMaster is supplied as standard with ControlPoint's BlueBox technology onboard. When ControlPoint enabled, the WeldMaster links with the BlueBox app to ensure full operator information is captured prior to welding, and that all butt fusion data is then automatically uploaded to the JointManager website. For unbeatable quality control of your butt fusion joints, the ControlPoint enabled Weldmaster can be used with the BDI (see p9)



## Butt Fusion Accessories

# WeldMaster Machine Range



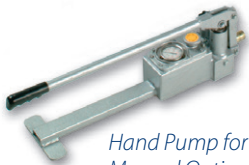
Liners available to suit ALL pipe diameters



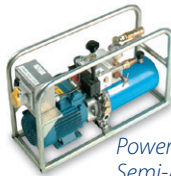
Optional Barcode Reader



Optional Thermal Printer



Hand Pump for Manual Option



Power Pack for Semi-Auto Option

### Options

- WeldMaster Joint Data Analysis Software
- Smartphone Apps
- USB Memory Device
- Barcode Reader
- Liners for different pipe diameters
- Thermal Printer

### Ancillary Products

- Welding Shelters (p10)
- Generators
- Pipe Support Rollers (p11)
- External Debeaders (p10)
- Internal Debeaders
- Bead Gauges (p10)
- BDI Tool (see below)

### Standards

- GIS/PL2-3:2015
- WIS 4-32-08: 2016
- DVS 2207-1: 2007
- ISO12176-1:2012
- ISO12176-3:2011 Operator Badge (with Barcode Reader fitted)
- ISO12176-4:2003 Traceability Coding (with Barcode Reader fitted)

### Other Machine options available

- Manual
- Semi-Automatic

In the case of Semi-Automatic machines, there is an option of a Data-logging unit which will continuously monitor and record time, pressure and temperature throughout the jointing process. These jointing parameters are stored in memory for subsequent data-download.

## BDI - Bead Diagnostic Instrument



Bead gauges for checking final bead width (see p11)

### BDI – Quality Control for Butt Fusion

The BDI (Bead Diagnostic Instrument) is a unique onsite tool that gives you a clear and quick result on the quality of your butt fusion welds without the need for destructive testing.

The BDI (bead diagnostics instrument) is the only tool to test the integrity of the majority of the bead in a non-destructive manner.

Unlike the industry recognised 'bend back test', the BDI tests up to 95% of the entire bead length ensuring a controlled and recorded test is carried out which can be replicated perfectly time after time.

Reasons to adopt BDI on your pipelines:

- BDI can be fully integrated into the butt fusion welding process or stand-alone – it's up to you
- It is simple to use
- Up to 95% of the bead length is tested
- Bead and split length are recorded
- Immediate test results are available after every weld
- In conjunction with smart phone app, all results can be captured and documented in real time on a secure server
- Failed joint alerts can be sent to supervisors

Product code	Description
189-000045	BDI Unit



# External Debeaders



External Debeader

External Debeading Tools are used to remove the external bead from a butt fusion welded joint. The tool taps onto the pipe bead, then alignment blocks slide against the pipe surface to guide the Debeader around the pipe. The blade cuts under the bead but does not damage the surface of the pipe.

Product code	Description
700-000101	External Debeader (63 - 125mm diameter pipe)
700-000006	External Debeader (90 - 400mm diameter pipe)
700-000085	External Debeader (110 - 500mm diameter pipe)
700-000103	External Debeader (630 - 900mm diameter pipe)
700-000105	Replacement Debeader Blade (63 - 125mm)
700-000029	Replacement Debeader Blade (90 - 400mm)
700-000137	Replacement Debeader Blade (110 - 500mm)
700-000104	Replacement Debeader Blade (630 - 900mm)

# Butt Fusion Welding Shelters

## Welding Shelters

A complete range of flame retardant shelters for Butt welding in order to keep contaminants such as rain, pollen, dust and any other floating debris, away from the welding area.

## Welding Shelters

	Product code	Description	Colour	Material	Frame	L (m)	W (m)	H (m)	Flame Ret .
A	047-000053	Budget Mains Laying Tent	White & Yellow	PU Coated Nylon	Pop up Fibreglass	1.8	1.8	1.8	Yes
B	047-000116	Mains Laying Tent	White	PU Coated Polyester	Pop up Fibreglass	2	2	2	Yes
C	047-000111	Heavy Duty Mains Laying Tent	White & Yellow	8oz PU Coated Polyester	Pop up Fibreglass	1.8	1.8	1.8	Yes
D	047-000117	Premium Main Laying	Translucent	PVC	Pop up Fibreglass	1.8	1.8	1.8	Yes
E	047-000119	Heavy Duty Site Tent	White	PVC	Poles Aluminium	1.8	1.8	2.3	Yes
F	047-000118	Heavy Duty Jumbo Tent	White & Blue	PVC Coated Polyester	Concertina Aluminium	3	3	3	Yes

Please note due to the vast range of umbrellas not all products available are featured. Please discuss you needs with our Sales Office.

## Welding Shelter Options

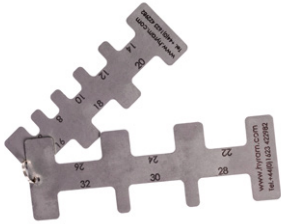
Available in pop-up, pole type or concertina type. Optional extras are available including;

- Company logos
- Different colour covers
- Side vents
- Heavy duty carry bags
- Windows made from translucent PVC
- Internal straps
- Rubber feet
- Variable door configurations





# Bead Gauges



Bead Gauges are a quick and simple way to gauge the final bead width of a butt fused joint to ensure that the width is within the specified tolerance.

Product code	Description
161-000190	Hy-Ram Bead Gauges (Set of 2) with slots for 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, and 32mm

# Pipe Rollers



630 Roller

Various sizes of pipe rollers are available to suit differing pipe diameters and site conditions.

Product code	Description
681-000002	Pipe Roller <315mm
681-000010	Pipe Roller 63-400mm, Height Adjustable
681-000011	Pipe Roller 400-630mm, Height Adjustable



315 Roller



400 Roller



## Electrofusion Control

# Electrofusion Boxes - ACT Range



*Datafuse Act range of Electrofusion Boxes*

### **Datafuse ACT1, ACT2, ACT3 - 40V Electrofusion Control Units**

The ACT range is designed to weld large diameter 40V PE pressure fittings up to 630mm diameter. The units have been tailored to the construction industry and are built in a strong plastic case, with a steel protective frame and have a durable user interface. All ACT units are fully approved to the UK National Grid 'Gas Industry Standard' ECE 1. The ACT 2 and ACT3 have full data logging capabilities and the ACT3 has automatic bar code welding. Optional wireless communications allowing email and SMS text is also available.

### **Datafuse ACT4 - 80V Electrofusion Control Unit**

The ACT4 is designed to weld large diameter 80V PE pressure fittings up to 630mm diameter in Manual mode with full data logging. The ACT4 is also approved to weld Radius Easigrip fittings with multi-cycle times.

### **Datafuse ACT6 - 40/80 (Mini13) - 40V & 80V Electrofusion Unit**

The ACT6 is designed to weld large diameter 40V and 80V PE pressure fittings up to 630mm diameter in Manual mode with full data logging. It's approved to weld Radius Easigrip fittings with multi-cycle times.

### **ACT1, ACT2, ACT3, 40V Electrofusion Control Units**

SPECIFICATIONS	ACT1 - 40V	ACT2 - 40V	ACT3 - 40V	ACT4 - 80V	ACT6 - 40v & 80V (Mini 13)
Operating Modes	Manual, Barcode			Manual, Easigrip	Manual, EasiGrip, Barcode
Controlled Welding Voltage	39.5V ac (8 to 48V)			79V	39.5 V (8 to 48 V) & 79 V
Welding Current	1-75 A (100 A Peak)			1-65A (100 A peak)	1-65A (100 A peak)
Welding Time	1-6000 seconds			1-6000 seconds	1-6000 seconds
Supply Voltage	115 V $\pm$ 15% (40-60 Hz) 230 V $\pm$ 15% (40-60 Hz)			115 V $\pm$ 15% (40-60 Hz)	115 V $\pm$ 15% (40-60 Hz)
Supply Current	1-32 A (115 V) / 1-15 A (230 V)			1-63 A (115 V)	1-63 A (115 V)
Supply Power	4000 W			7500 W	7500 W
Weight	28g			20kg	13kg
Size	38 x 38 x 40cm			38 x 38 x 40cm	39 x 36 x 25cm
Operating Temperature	-15°C to + 50°C			-15°C to + 50°C	-15°C to + 50°C
Multi-lingual Intuitive Menu	✓	✓	✓	✓	✓
Bar Code Entry of Fusion Time			✓		
Temperature Compensation			✓		
Bar Code Pen			✓		
Bar Code Scanner			✓		
Data Download PC Software		✓		✓	✓
Data Download PC Software		✓	✓	✓	✓
Read Traceability Bar Codes			✓		
Operator Welding Pass		✓	✓	✓	✓
Wireless Email & SMS Text		OPT	OPT	OPT	OPT
GPS Location Logging		OPT	OPT	OPT	OPT
Data Log Memory (2048 Welds)		✓	✓	✓	✓



# Electrofusion Boxes - ATS Range



ATS 250



ATS 500



ATS:COMBI

## ATS180, ATS250 and ATS500 - 40V Electrofusion Control Units

The ATS180 series welding unit is designed to weld 40V PE pressure fittings up to 180mm diameter. The unit has automatic bar code operation. It has full data logging capabilities downloaded via USB. The ATS250 series welding unit is designed to weld 40V PE pressure fittings up to 400mm diameter. The Basic and Extra models have fully automatic bar code welding and the Extra has full data logging facilities downloaded via USB. The ATS500 series welding unit is designed to weld 40V PE pressure fittings up to 630mm diameter. The unit has automatic bar code operation and data logging capabilities downloaded via USB. All three units comply with the ISO International Standard for welding equipment. The ATS range is available in three different formats, frame mounted, enclosed in a durable bag/carry case or as a COMBI unit with a generator.

## ATS:COMBI – Combined Electrofusion Control Unit and Generator

The COMBI can weld 40V PE fittings up to 180mm diameter in both manual and automatic bar code mode. It combines a generator and an electrofusion welder in one easily portable unit. It has been designed specifically for service pipe installation and the house connections market where compact and convenient equipment is often preferred. The unit has a 110V, 16A power outlet capable of powering auxiliary equipment when the electrofusion welder is not working.

## ATS 180, ATS 250, ATS 500, ATS:COMBI, 40V Electrofusion Control Units

SPECIFICATIONS	ATS 180	ATS 250			ATS 500	ATS:COMBI
Model	Bag / Frame Version	Manual	Basic	Extra		
Operating Modes	Manual, Barcode	Manual	Auto	Auto	Manual, Barcode	Manual, Barcode
Controlled Welding Voltage	39.5V ac (8 to 48V)	39.5V ac (8 to 48V)			39.5V ac (8 to 48V ac)	39.5V ac (8 to 48V ac)
Welding Current	1-50A	1-60A			1-75 A (100 A Peak)	1-50A
Welding Time	1-1,500 Seconds	1-3,000 Seconds			1-6,000 Seconds	1-1500 seconds
Supply Voltage	115 V $\pm$ 15% (40-60 Hz) 230 V $\pm$ 15% (40-60 Hz)	115 V $\pm$ 15% (40-60 Hz) 230 V $\pm$ 15% (40-60 Hz)			115 V $\pm$ 15% (40-60 Hz) 230 V $\pm$ 15% (40-60 Hz)	115 V $\pm$ 15% (40-60 Hz)
Supply Current	1-25 A (115 V)/1-12 A (230 V)	1-28 A (115 V)/1-14 A (230 V)			1-32 A (115 V)/1-15 A (230 V)	1-16 A
Supply Power	3000 W	3,500 W			4000 W	2800 W
Weight	11kg (Bag) 12kg (Frame)	20kg			20kg	50kg
Size	30 x 20 x 26 / 34cm	22 x 26 x 45cm			25 x 32 x 37cm	60 x 45 x 40cm
Operating Temperature	-15°C to + 50°C	-15°C to + 50°C			-15°C to + 50°C	-15°C to + 50°C
Bar Code Entry of Fusion Time	✓		✓	✓	✓	✓
Temperature Compensation	✓		✓	✓	✓	✓
Bar Code Pen			OPT	OPT	OPT	
Bar Code Scanner	✓		✓	✓	✓	✓
Data Download on USB Memory	✓			✓	✓	✓
Data Download PC Software	✓			✓	✓	✓
Read Traceability Bar Codes	✓		✓	✓	✓	✓
Operator Welding Pass	✓		✓	✓	✓	✓
Wireless Email & SMS Text	OPT			OPT	OPT	OPT
GPS Location Logging					OPT	OPT
Control Point Ready	✓					✓





# ControlPoint Asset Integrity System



*ControlPoint's Remote Inspection System*

*Control Point Compatible with iOS, Windows Mobile & Android*

## **Powerful Quality Assurance for Electrofusion Welding**

ControlPoint offers a complete quality assurance system, with the added benefit of a 10-year guarantee of up to £5000 on joints that they have inspected and passed.

As an official ControlPoint partner, Hy-Ram brings you their ground-breaking asset integrity package, which combines real time joint data capture, remote inspection, EUSR accredited training and onsite services. We can also offer you access to ControlPoint's accredited test laboratory (joint testing and materials analysis)

## **How It Works**

The electrofusion control unit is paired with the operator's smartphone, and the ControlPoint app (compatible with iOS, Windows Mobile and Android) guides the operator through the process of photographing the prepared joint. The photos, plus weld data and GPS tag, are sent via 3G/4G to ControlPoint.

## **Remote Inspection**

ControlPoint monitor and assess the joint images in real time. If an issue is identified, alerts are sent via SMS and/or email to site supervisors. The process, which takes a matter of minutes, allows network operators and their contractors to take action before joints are buried.

## **Continuous Improvement**

Joint data and inspection records are stored and can be quickly searched and analysed through ControlPoint's JointManager website. Performance trends and issues can be identified right down to individual operator level, meaning excellence can be rewarded, and performance problems can be addressed through targeted training.

## **ControlPoint offers:**

- EUSR-approved training sessions with an emphasis on practical, hands-on learning
- Onsite coaching to support operators throughout the installation process.
- Comprehensive BSI-certified testing and failure analysis through their in-house lab
- Technical expertise and assistance with pipeline projects



## Electrofusion Rerounding & Clamping

### Top Loading Clamps



#### TLC250, TLC315 and TLC400 Pillar Type Top Loading Clamp

These Hy-Ram Pillar Clamps locate in the 12mm hexagonal drive on the cutter of the tapping saddle. For saddles without an integral cutter, Saddle Adaptors are available.

**TLC32** This Clamp is exclusively for use with Kimplas 32mm tapping saddles.

All Clamps are of robust design and incorporate a 'correct load' indicator and a vee base to ensure correct pipe location

Product code	Description	Size Diameter Range
089-000505	TLC32	Specifically for Kimplas 32mm Tapping Saddles
089-000429	TLC250	Up to 250mm dia. pipe
089-000430	TLC315	Up to 315mm dia. pipe
089-000431	TLC400	Up to 400mm dia pipe
300-000243	Adaptor	63, 90mm Branch Saddle Adaptor
300-000244	Adaptor	63, 90, 125mm Branch Saddle Adaptor

*\* Important: Top Loading Clamps should be periodically calibrated in line with manufacturers' recommendations. Refer to Hy-Ram Portable Saddle Clamp tester for more information see below.*

#### TLC500 Strap Type; Top Loading Clamp

The Hy-Ram Strap Clamp locates in the 12mm Hexagonal drive on the cutter of the tapping saddle and is especially useful where trench space is tight.

For any size of pipe (up to 500mm diameter).

Product code	Description	Size Diameter Range
089-000432	TLC 500 (Strap type)	Up to 500mm dia. pipe
300-000243	Adaptor	63, 90mm Branch Saddle Adaptor
300-000244	Adaptor	63, 90, 125mm Branch Saddle Adaptor

(For saddles without an integral cutter, an Adaptor is available)



### Alignment Clamps



EFRAC 16-32 Uni-Clamp  
EFRAC 20-40 Uni-Clamp

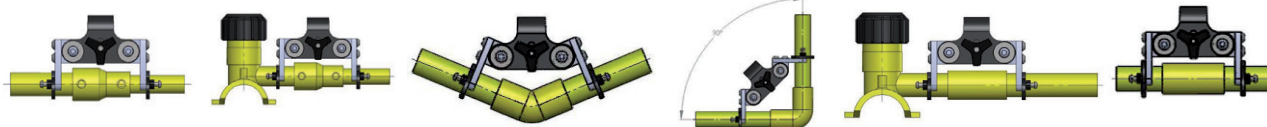
#### 'Black' Range Electrofusion Clamps

Manufactured using the latest water-jetting techniques, the clamps have a 'feel of quality'... more importantly they remain 'rigid' even under arduous pipe/site conditions.

#### EFRAC 16-32 and 20-40 Uni-Clamp; Restraining and Alignment Clamp

Compact, powerful Clamp with capability for straight, reducing and elbow fittings.

Product code	Description	Size Diameter Range
089-000433	EFRAC 16-32 Uni-Clamp	16, 20, 25 and 32mm
089-000331	EFRAC 20-40 Uni-Clamp	20, 25, 32 and 40mm





# Alignment Clamps



*EFRAC 16-63  
Uni-Clamp*



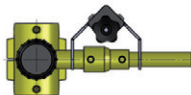
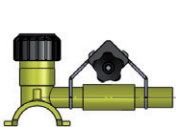
*EFRAC 16-63 Elbow  
Clamp Kit*



*EFRAC Clamp Set  
for 63mm Diameter*



*EFRAC Clamp Set  
for 32mm Diameter*



## EFRAC 16-63 Uni-Clamp; Restraining and Alignment Clamp

Compact, powerful Clamp with capability for straight, reducing and elbow fittings.

Product code	Description	Size Diameter Range
089-000332	EFRAC 16-63 Uni-Clamp	16, 20, 25, 32, 40, 50 and 63mm
089-000519	EFRAC 16-63 Uni-Clamp extended version for Frialong fittings	16, 20, 25, 32, 40, 50 and 63mm

## EFRAC 16-63 Elbow Clamp Kit

This kit comprises a main spring-loaded Clamp Body with easily changeable Clamp Jaws. The Clamp Jaws facilitate use on 16, 20, 25, 32, 40, 50 and 63mm electrofusion fittings... either straights, reducers, 90° Elbows or 45° Elbows.

The Clamp is compact and has been designed specifically for use when connecting an Elbow to a Tapping Saddle, however it is also versatile for use in other electrofusion applications.

Product code	Description
089-000320	EFRAC 20-63 Elbow Clamp Kit C/W 16,20,25,32,40,50 & 63mm Jaw Sets
192-000016	63mm Straight 90deg Jaw (4 pieces needed)
192-000024	63mm Left Hand 45deg Jaw (2 pieces needed)
192-000028	63mm Right Hand 45deg Jaw (2 pieces needed)
192-000015	50mm Straight 90deg Jaw (4 pieces needed)
192-000023	50mm Left Hand 45deg Jaw (2 pieces needed)
192-000027	50mm Right Hand 45deg Jaw (2 pieces needed)
192-000014	40mm Straight 90deg Jaw (4 pieces needed)
192-000022	40mm Left Hand 45deg Jaw (2 pieces needed)
192-000026	40mm Right Hand 45deg Jaw (2 pieces needed)
192-000013	32mm Straight 90deg Jaw (4 pieces needed)
192-000018	32mm Left Hand 45deg Jaw (2 pieces needed)
192-000020	32mm Right Hand 45deg Jaw (2 pieces needed)
192-000021	32mm Left Hand 45deg Jaw (2 pieces needed) (for 63/32mm reducer)
192-000025	32mm Right Hand 45deg Jaw (2 pieces needed) (for 63/32mm reducer)
192-000012	25mm Straight 90deg Jaw (4 pieces needed)
192-000017	25mm Left Hand 45deg Jaw (2 pieces needed)
192-000019	25mm Right Hand 45deg Jaw (2 pieces needed)
192-000011	20mm Straight 90deg Jaw (4 pieces needed)
192-000009	20mm Left Hand 45deg Jaw (2 pieces needed)
192-000010	20mm Right Hand 45deg Jaw (2 pieces needed)
192-000008	16mm Straight 90deg Jaw (4 pieces needed)
192-000006	16mm Left Hand 45deg Jaw (2 pieces needed)
192-000007	16mm Right Hand 45deg Jaw (2 pieces needed)





# Alignment Clamps



*EFRAC 180 – Standard Kit*



*EFRAC 180 – Delux Kit*



*EFRAC 180 delux with 90° Tee Adaptor Clamp*



*Tee Adapter Carrying Holdall*



*Carrying Holdall*

## EFRAC 180 Standard and Delux Kits; Restraining and Alignment Clamp

Extremely rigid and powerful Clamp available in two kit options and with the option of additional accessories.

‘Click-tight’ liners for quick and easy adjustment for different pipe diameters... screws and allen keys are not required!

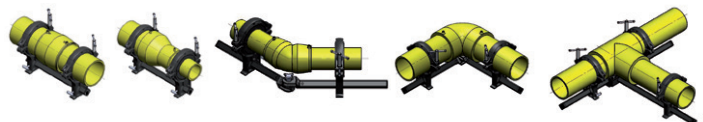
The standard Clamp caters for straight and reducing fittings, whilst the Delux Clamp can also handle elbows. Both kits come in a tough carry-bag and have the option of additional size liners and a 90° arm attachment to enable the use of a third clamp ring for welding 90° equal tees.

Product code	Description	Size Diameter Range
089-000302	EFRAC 180 Kit – Standard, complete with straight bar, standard liners and bag	63, 90, 125 & 180mm
089-000345	EFRAC 180 Kit – Delux, complete with knuckled bar, standard liners and bag	63, 90, 125 & 180mm
045-000202	Spare Blue Carrying Holdall	-
Please enquire	Spare Blue Carrying Holdall - Customer Logo	-
089-000305	EFRAC 180 90deg tee adaptor clamp	63, 90, 125 & 180mm
045-000245	EFRAC180 90deg tee adaptor Carrying Holdall (not supplied as std.)	-
Please enquire	EFRAC180 90deg tee adaptor Carrying Holdall - Customer Logo	-

## Table showing all ‘click-tight’ liners available

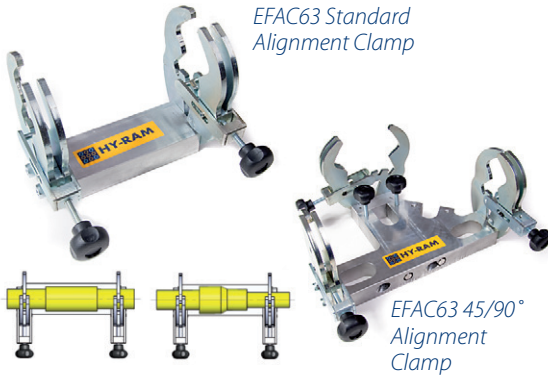
Product code	Description
604-000005	63mm Liner, each (minimum 4 required)
604-000009	75mm Liner, each (minimum 4 required)
604-000004	90mm Liner, each (minimum 4 required)
604-000006	110mm Liner, each (minimum 4 required)
604-000003	125mm Liner, each (minimum 4 required)
604-000007	140mm Liner, each (minimum 4 required)
604-000008	160mm Liner, each (minimum 4 required)

\* Note, other size liners available on request





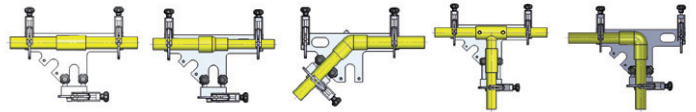
# Alignment Clamps



## EFAC 63 Alignment Clamp (no liners required)

Small, compact Service pipe Alignment Clamp ensures quick and easy clamping of any size pipe within the range with no adjustment or loose pieces. The standard version handles straight and reducing fittings, whilst the 45/90° version also facilitates clamping of elbows.

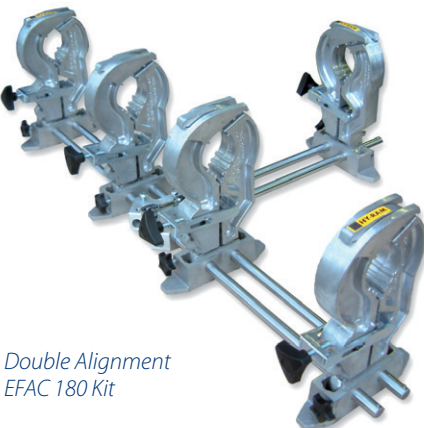
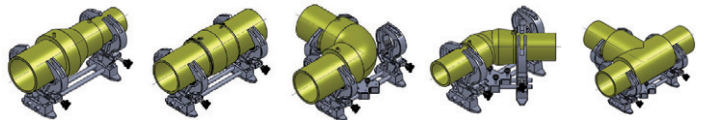
Product code	Description	Size Diameter Range
089-000050	EFAC 63 Alignment Clamp	16 – 63mm (inclusive)
089-000166	EFAC 63 45/90° Alignment Clamp	16 – 63mm (inclusive)



## EFAC 180 Alignment Clamp (no liners required)

The 'original' no-liner clamp, the gear in the base ensures quick and easy clamping of any size pipe within the clamp range with no adjustment or loose pieces. The standard version handles straight and reducing fittings, whilst the 45/90° Adaptor kit also facilitates clamping of elbows and tees.

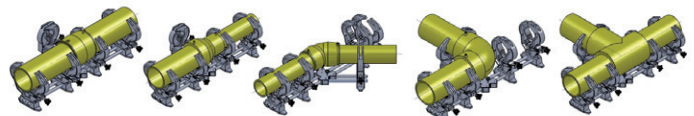
Product code	Description	Size Diameter Range
089-000048	EFAC 180 Alignment Clamp	63 – 180mm (inclusive)
089-000049	45/90° Adaptor Kit for EFAC 180	63 – 180mm (inclusive)



## EFAC180 Double Alignment Clamp (no liners required)

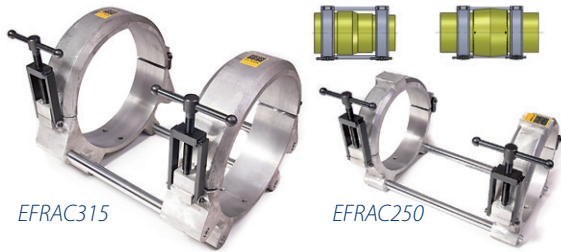
Similar to the EFC180 except features a double clamp either side of the fitting in order to increase rigidity. Comes complete in a strong steel carry-case.

Product code	Description	Size Diameter Range
089-000140	EFAC180 'Double' Alignment Clamp Kit (including steel carry case)	63 – 180mm (inclusive)
089-000628	45/90° Adaptor Kit for above	63 – 180mm (inclusive)





# Alignment Clamps



## EFRAC 250 and EFRAC315 Restraining and Alignment Clamp

Strong, robust 'original' style Clamp with liners suitable for clamping straight and reducing fittings. *\* Note, other size liners available on request*

Product code	Description	Size Diameter Range
089-000093	EFRAC 250 Alignment Clamp	180 - 250mm (inclusive)
300-000022	Liner 250/180 (4 required)	
089-000094	EFRAC 315 Alignment Clamp	250 - 315mm (inclusive)
300-000057	Liner 315/250 (4 required)	

# Manual & Hydraulic Positioning & Restraining Clamps

Manual Positioning Clamp  
(315, 355 & 400mm models)



## AlignMaster Manual Positioning Clamps (280, 315, 355, 400)

For positioning and restraining pipe work throughout the electrofusion jointing process.

Product Code	Description
089-000551	315mm Positioning Clamp
089-000552	355mm Positioning Clamp
089-000553	400mm Positioning Clamp
604-000029	400 - 355mm Set of Reducing Shells (2 pieces)
604-000030	400 - 315mm Set of Reducing Shells (2 pieces)
604-000031	315 - 280mm Set of Reducing Shells (2 pieces)

## Strap-type Manual Positioning Clamp (63 - 250mm & 125 - 500mm)

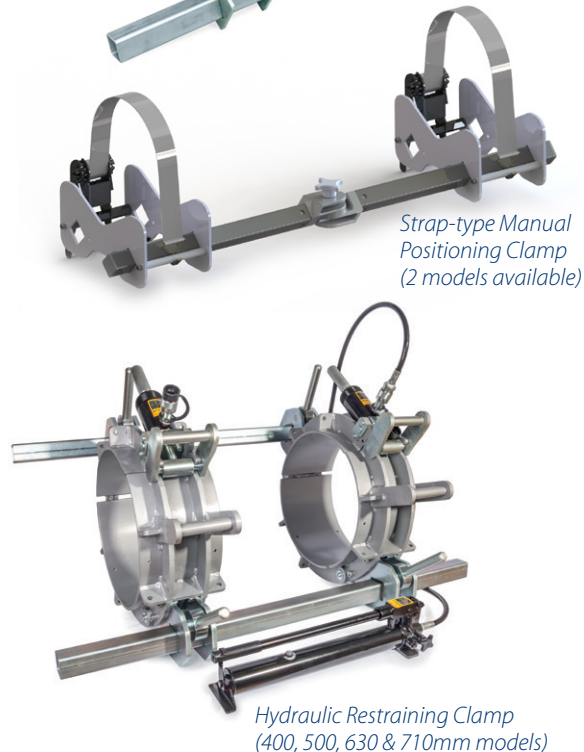
For positioning and supporting PE pipes and fittings throughout the electrofusion jointing process.

Product code	Description
089-000629	63 - 250mm Positioning Clamp, 2-way, straight base
089-000630	63 - 250mm Positioning Clamp, 2-way, angle maker base
089-000580	125 - 500mm Positioning Clamp, 2-way, straight base
089-000581	125 - 500mm Positioning Clamp, 2-way, angle maker base
089-000582	3 way adaptor kit for any of the 2-way Clamps above

## AlignMaster Hydraulic Positioning Kit

For re-rounding, positioning and restraining large diameter pipes and couplers throughout the electrofusion jointing process.

Product code	Description
089-000561	400mm Hydraulic Positioning Kit + 2 x Pumps
604-000022	400 - 355mm Set of Reducing Shells (3 pieces)
604-000023	400 - 315mm Set of Reducing Shells (3 pieces)
089-000562	500mm Hydraulic Positioning Kit + 2 x Pumps
604-000024	500 - 450mm Set of Reducing Shells (3 pieces)
604-000025	500 - 400mm Set of Reducing Shells (3 pieces)
089-000563	630mm Hydraulic Positioning Kit + 2 x Pumps
604-000026	630 - 560mm Set of Reducing Shells (3 pieces)
604-000027	630 - 500mm Set of Reducing Shells (3 pieces)
089-000564	710mm Hydraulic Positioning Kit + 2 x Pumps
604-000028	710 - 630mm Set of Reducing Shells (3 pieces)



Hydraulic Restraining Clamp  
(400, 500, 630 & 710mm models)





## Electrofusion Preparation

# Mechanical Scrapers

### PrepMaster Multi

#### Mechanical Rotary Scraping Tool

Manually operated mechanical rotary scraping tool for removal of the outer surface of PE pipe. PrepMaster Multi scrapers incorporate a hardened blade and give a controlled depth of cut. Available for pipe sizes between 63 and 710mm.

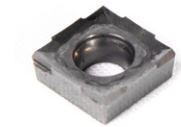


*PrepMaster Multi 63-315mm*

Product code	Description
700-000146	63-315mm diameter pipe
700-000147	90-400mm diameter pipe
700-000148	110-500mm diameter pipe
700-000149	250-710mm diameter pipe
117-000291	PrepMaster Multi Cutting Blade (4 Sided) for all of the above 4 Scrapers
045-000288	Steel Storage Box 63-315mm
045-000289	Steel Storage Box 90-400mm and 110-500mm
045-000290	Steel Storage Box 250-710mm



*Easy adjustment for differing pipe walls*



*Cutting Blade (4 sided)*

*Robust bronze knobs for "fast traverse" & blade positioning*



*PrepMaster Multi  
Diameter 250-710mm*



# Mechanical Scrapers



*PrepMaster Mono Range*



*"One Touch" Blade Lock Off Mechanism*

*Removable Mandrel. Alternative SDRs can be specified*



*PrepMaster Mono 25mm*

*Cutting Blade (4 sided)*

## PrepMaster Mono Rotary Scraping Tool

Manually-powered rotary scraping tool for the removal of the outer surface of PE pipes prior to electrofusion. Available in one tool per pipe/SDR, from 20mm to 63mm outside diameter.

Description	Straight Handle Type	Crank Handle Type
20mm diameter pipe x SDR11	700-000150	700-000151
25mm diameter pipe x SDR11	700-000152	700-000153
32mm diameter pipe x SDR11	700-000154	700-000155
40mm diameter pipe x SDR11	700-000156	700-000157
50mm diameter pipe x SDR11	700-000158	700-000159
55mm diameter pipe x SDR11	700-000160	700-000161
63mm diameter pipe x SDR11	700-000162	700-000163
Crank Handle (sold separately)		171-000100
PrepMaster Mono Cutting Blade (4 Sided)	117-000292	117-000292

# Manual Scrappers



*Harris Scraper*

*Spare Blades*

## Hand Scrapers

Robust and easy to use hand tools for manual scraping of PE pipe prior to electrofusion.

Product code	Description
700-000001	Harris Scraper 1 ½" Width
700-000002	Harris Scraper 2 ½" Width
041-000001	Harris Scraper Blade 1 ½" Width (pack of 2)
041-000002	Harris Scraper Blade 2 ½" (pack of 2)

## Profuse Scraper

For the removal of the protective skin on High Performance PE100 pipe. Adjustable for up to 630mm pipe.

Product code	Description	Spare Blade Part Code
700-000136	Profuse Scraper – Black Plastic	n/a



*Profuse Scraper*



## Cutter Drive Keys



Cutter drive keys for Electrofusion self-tapping saddles (12mm Hexagon drive).

Product code	Description
270-000005	Cutter Drive Key

### GF Cutter Drive Key

Assembly and Tapping Key for Georg Fischer ELGEF Plus Saddles

Product code	Description
270-000138	17mm Hex Drive Key
GEOR799198047	GF Cutter Drive Key

## Alcohol Wipes



Alcohol wipes are used for removing dirt and grease on a pipe spigot prior to electrofusion. These specialised wipes are impregnated with a high specification solution containing either 70% or 90% Isopropyl Alcohol.

Product code	Description
700-000022	Alcohol Wipes 70% (Tub of 100)
700-000069	Alcohol Wipes 90% (Tub of 100)

## Electrofusion Welding Umbrellas & Shelters

### Umbrellas and Shelters

A complete range of flame retardant umbrellas and shelters used for Electrofusion welding to keep contaminants such as rain, pollen, dust and any other floating debris, away from the welding area.

### Welding Umbrellas and Shelters

	Product code	Desc.	Colour	Frame	Size	Shaft	Flame Retard.
A	047-000120	Welding Umbrella	White	Metal	2.0m Diameter	Non Conductive Fibreglass	Yes
B	047-000121	Welding Umbrella	Translucent PVC	Non Conductive Fibreglass	2.5m Diameter	Non Conductive Fibreglass	Yes
C	047-000061	Welding Umbrella c/w Skirt	White	Metal	2.0m Diameter	Non Conductive Fibreglass	Yes
D	047-000115	Welding Umbrella c/w Skirt	Translucent PVC	Non Conductive Fibreglass	2.5m Diameter	Non Conductive Fibreglass	Yes
E	047-000050	Service Laying	White	Pop up Fibreglass	1.8 x 1.8 x 1.7 (L x W x H)	n/a	Yes

Please note due to the vast range of umbrellas not all products available are featured. Please discuss you needs with our Sales Office.

### Options...

Certain umbrellas and shelters are available with the following options:

- Company logos
- Different colour covers
- Side vents
- Heavy duty carry bags
- Windows made from translucent PVC
- Internal straps
- Rubber feet
- Variable door configurations



## Gas Test Equipment

### Multitester



#### Multitester

Multi test cap for pressure testing PE Gas services through the Electrofusion top tapping tee, by making use of the 12mm Hex Cutter drive. Requires either brass or steel tee assembly.

Product code	Description
300-000009	Multitester (Only)
300-000226	Multitester complete with Steel Tee assembly
300-000010	Multitester Steel Tee assembly
300-000113	Multitester Brass Tee assembly

### Top Tee Test Pieces



#### Top Tee Test Pieces

Electro Fusion Top Tee Test Cap for the pressure testing joints once the Tapping Tee has been fused to the pipe and connected to the service pipe, a pressure test should be carried out in accordance with the appropriate industry / asset owner's guidelines.

Product code	Description
657-000069	32mm DuraFuse Test Cap Assembly
657-000070	Kimplas Trustlene Flexifit Cap Assembly
657-000071	63mm Radius Test Cap Assembly
657-000072	32mm Radius Test Cap Assembly
657-000073	20mm Kimplas Outlet Test Cap Assembly
657-000074	32mm GF Test Cap Assembly

### PE Service Tester



#### PE Service Tester

PE service tester for pressure testing PE Gas services.

Product code	Description
106-000037	PE Service Tester 20/25/32mm





## Squeeze Tools

### Mini Sou



Mini SOU

#### Mini Squeeze Off Tool

Pipe range: 16 – 32mm diameter

#### Mini SOU Features...

The Mini SOU is used to limit the flow in PE pipe. Squeeze off is affected by manually turning the handle in a clockwise direction.

Product code	Description
089-000513	Mini Squeeze Off Unit

### SOU32, SOU63, SOU63HF, SOU125



SOU32  
(16 - 32mm dia.)



SOU63  
(20 - 63mm dia.)



SOU63HF  
(20 - 63mm dia.)



SOU125 (63 - 125mm dia.)

#### SOU32, SOU63, SOU63HF, SOU125 Squeeze Off Tool

These tools are used to limit the flow in PE pipe. Different diameters can be accommodated by using the appropriate 'Pipe stop' setting to ensure the optimum 'squeeze gap'.

Product code	Description	Pipe Stops - dia. (mm)	SDR
<b>SOU32</b>			
089-000053	SOU32 Squeeze Off Unit	16, 20, 25, 32	
<b>SOU63</b>			
089-000052	SOU63 Squeeze Off Unit	20, 25, 32, 63	
<b>SOU63HF</b>			
089-000241	SOU63HF Squeeze Off Unit	20, 25, 32, 40, 50, 63	11
<b>SOU63 HF Spare Pipe Stops</b>			
716-000173	Pipe Stop (pair) for SOU63HF	20, 25, 32, 40, 50, 63	11
716-000174	Pipe Stop(pair) for SOU63HF	20, 25, 32, 40, 50, 63	17
<b>SOU125</b>			
089-000187	SOU125 Squeeze Off Unit	63, 75, 90 90, 110 125	11 17.6
089-000397	SOU125 Squeeze Off Unit	63, 75, 90, 110, 125	21
<b>SOU125 Spare Pipe Stops</b>			
716-000089	Pipe Stop(pair) for SOU125	63, 75, 90 90, 110 125	11 17.6
716-000168	Pipe Stop(pair) for SOU125	40,50,63,75,90,125	21



# SOU180 & SOU200

## SOU180 – Hydraulic Squeeze Off Tool

Pipe range: 63 – 180mm diameter

## SOU200 – Hydraulic Squeeze Off Tool

Pipe range 63 - 200mm Diameter

### SOU180 and SOU200 features...

The latest SOU180 and SOU200 MK3 versions have CNC machined stops and an integral hydraulic jack enabling a maximum squeeze force of 15 tonnes.

The units are fitted with safety check screws to prevent accidental release and also incorporate a jack spring return mechanism. 'Pipe stops' are used on the units for each diameter/SDR combination thus ensuring the optimum 'Squeeze gap'.

As standard our market leading SOU200 comes complete with stop sets to suit SDR11 and SDR17.6, in the pipe sizes denoted below. One set will be fixed to the bottom beam ready for use and the other will be securely attached to the squeeze off frame crossbar.

Additional stop sets can be purchased for the unit, please contact our sales team to discuss your requirements further.

Product code	Description	Pipe Stops - diameter (mm)
089-000054	SOU180 Squeeze Off Unit	See table below
089-000522	SOU200 Squeeze Off Unit	See table below



SOU180 MK3



MK3 CNC  
Machined Stops



SOU200 two sets of  
stops as standard



SOU200 MK3

### SOU180 and SOU200 Spare 'Pipe stops'...

**Note: SOU180 and SOU200 MK3 pipe stops are not compatible with MK1 & MK2 versions, see table below**

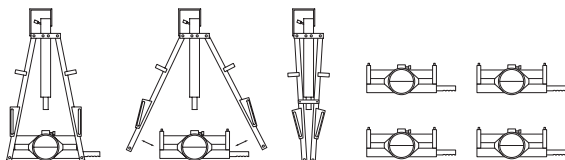
Product code MK1/MK2	Product code MK3	Model	Description	Pipe Stops - Diameter/SDR
716-000021	716-000224	SOU180	Pipe Stop (pair)	63/11, 75/11, 90/11, 125/11, 180/11, 125/17.6, 180/17.6
716-000046	716-000226	SOU180	Pipe Stop (pair)	110/11, 140/11, 110/17.6, 140/17.6, 160/17.6
716-000063	716-000228	SOU180	Pipe Stop (pair)	63/11, 90/11, 110/11, 160/11, 90/17.6, 110/17.6, 160/17.6
716-000070	716-000230	SOU180	Pipe Stop (pair)	63/11, 90/11, 110/11, 125/11, 160/11, 180/11
716-000155	716-000232	SOU180	Pipe Stop (pair)	63/11, 75/11, 90/11, 110/11, 125/11, 140/11, 160/11, 180/11
716-000156	716-000234	SOU180	Pipe Stop (pair)	63/17.6, 75/17.6, 90/17.6, 110/17.6, 125/17.6, 140/17.6, 160/17.6, 180/17.6
716-000162	716-000236	SOU180	Pipe Stop (pair)	63/21, 75/21, 90/21, 110/21, 125/21, 140/21, 160/21, 180/21
716-000167	716-000238	SOU180	Pipe Stop (pair)	90/11, 125/11, 180/11, 90/17.6, 125/17.6, 180/17.6
716-000175	716-000240	SOU200	Pipe Stop (pair)	63, 75, 90, 110, 125, 140, 160, 180, 200
716-000176	716-000242	SOU200	Pipe Stop (pair)	63, 75, 90, 110, 125, 140, 160, 180, 200
716-000182	716-000244	SOU200	Pipe Stop (pair)	75, 90, 110, 125, 140, 160, 180, 200



# SOU 250



*SOU250 with  
pneumatic  
input / hydraulic  
output power  
unit*



*Detachable "A" Frame  
Enables 4x Simultaneous  
Squeeze Points*



*Pipe Stops*

## SOU250 – Hydraulic Squeeze Off Unit

Pipe range: 180 – 250mm diameter

Gas pipe Squeeze Off unit with pioneering 'A' Frame design that is extremely lightweight yet very robust for 'in-trench' conditions... the Frame folds and can be locked 'flat' for ease of carrying and transportation.

The principle of operation is that the squeeze is carried out, the Top and Bottom beams are then mechanically locked together and then the 'A' Frame is detached and used in conjunction with a second beam set. Using this concept all four squeeze points are accomplished using just one 'A' Frame assembly and one Power Unit.

Available in two options... as shown, with a pneumatic input / hydraulic output power unit or with a hydraulic hand-pump in lieu of the power unit and 'spring return' hydraulic cylinder.

The Top Squeeze beam is fitted with 'Pipe Stops' to suit the diameter and wall thickness (SDR) of the pipe to be squeezed.

Product code	Qty	Description
089-000492		SOU 250 Manual Squeeze Off Tool (Handpump)
089-000493		SOU 250 Auto Hydraulic Squeeze Off Tool (Power Unit)
Kit Includes		
	1	'A' Frame
	4	Top Beam Assembly (incorporating Pipe Stops)
	4	Bottom Beam Assembly
	1	Power Unit (Handpump not shown)

## Pipe Stops – SOU250

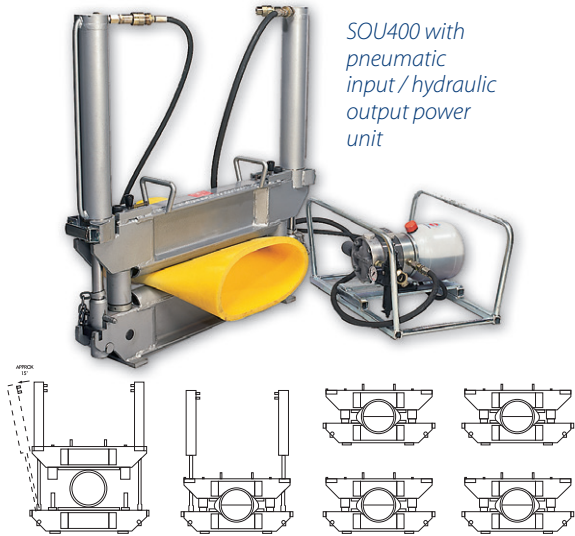
A set consists of 8 x Stops. Each Stop can be rotated through 180° thus giving 2 x Diameter / SDR combinations. Stops can be custom made for any specified pipe. Codes as follows are for individual Stops.

Product code	Description				
716-000036	125/11 and 90/11	716-000158	225/21 and 225/17.6	716-000049	250/17.6 and 200/17.6
716-000064	200/11 and 180/11	716-000008	250/11 and 180/11	716-000020	250/17.6 and 225/17.6
716-000065	200/17.6 and 180/17.6	716-000048	250/11 and 200/11	716-000159	250/21 and 225/11
716-000015	213/17.6 and 180/17.6	716-000033	250/11 and 225/11	716-000032	200/21 and 250/17.6
716-000057	225/11 and 180/11	716-000062	250/11 and 250/17.6	716-000055	250/21 and 250/17.6
716-000034	225/17.6 and 180/17.6	716-000014	250/17.6 and 180/17.6	716-000160	250/26 and 225/17.6

*Other sizes available on request*



# SOU400



*SOU400 with  
pneumatic  
input / hydraulic  
output power  
unit*

*Detachable "Hydraulic Cylinders Enable 4x Simultaneous  
Squeeze Points*



*Pipe Stops*



*Guide Tubes*

## SOU400 – Hydraulic Squeeze Off Unit

Pipe range: 250 – 400mm diameter

Gas pipe Squeeze Off unit, the principle is the same as that of the SOU250...the squeeze is carried out, the Top and Bottom beams are then mechanically locked together and then the hydraulic cylinders are 'unclipped' and used in conjunction with a second beam set. Using this concept all four squeeze points are accomplished using just one pair of hydraulic cylinders.

The Bottom Squeeze beam is fitted with 'Pipe Stops.' These Pipe stops form a positive 'stop' between the Top and Bottom beams and hence optimise the squeeze gap in order to ensure the pipe is not over-squeezed.

Product code	Qty	Description
089-000073		SOU 400 Auto Hydraulic Squeeze Off Tool
Kit Includes		
	2	Hydraulic Cylinders
	4	Top Beam Assembly
	4	Bottom Beam Assembly
	1	Power Unit (pneumatic input/hydraulic output)

## Pipe Stops – SOU400

A set consists of 8 x Stops. Each Stop is unique for a fixed Diameter / SDR combination. Stops can be custom made for any specified pipe.

Pipe OD	SDR 11	SDR 17.6	SDR 21 *	SDR 26 *
250	716-000006	n/a	716-000121	716-000120
268	n/a	n/a	n/a	716-000165
280	716-000081	716-000082	716-000123	716-000122
315	716-000002	716-000007	716-000125	716-000124
355	716-000003	716-000005	716-000127	716-000126
400	716-000001	716-000004	716-000129	716-000128

*\*Please note these sizes are for use with Mk1A Squeeze Off Units. Units issued with red guide tubes (as pictured) are capable of using these size stops. Please contact our technical department for further information.*

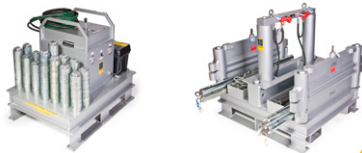




# SOU500

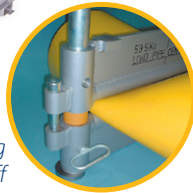


SOU 500 Unit



Storage & Transport Skids

Pipe being squeezed off



## SOU500 – Hydraulic Squeeze Off Unit

Pipe range 315-500mm diameter

Gas pipe Squeeze Off unit featuring a detachable Top beam with integrated hydraulic cylinders, an intermediate beam and a Bottom beam.

As with other Hy-Ram designs, the squeeze off is carried out, the intermediate and Bottom beams are mechanically locked together and then the Top beam complete with the cylinders can be detached for use on the second, third and fourth squeeze points.

Product code	Description
089-000148	SOU 500 Hydraulic Squeeze Off Tool

## Pipe Stops – SOU500

A set consists of 8 x Stops. Each Stop is unique for a fixed Diameter / SDR combination. Stops can be custom made for any specified pipe.

Pipe OD	SDR 11	SDR 17.6	SDR 21	SDR 26
315mm	716-000119	716-000118	716-000117	716-000116
355mm	716-000115	716-000114	716-000113	716-000112
400mm	716-000111	716-000110	716-000109	716-000108
450mm	716-000107	716-000106	716-000105	716-000104
469mm	716-000103	716-000102	716-000101	716-000100
500mm	716-000099	716-000030	716-000078	716-000096

Other sizes available on request

# SOU Controlled Release



## SOU400 – ‘Controlled Release’ Hydraulic Squeeze Off Unit

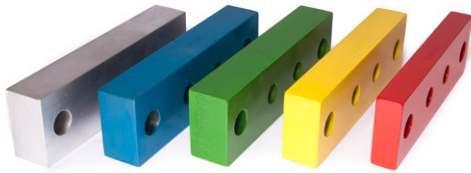
Pipe range: 250-400mm Diameter, PE100, 7 Bar

At the request of Transco (British Gas), Hy-Ram has developed a ‘special’ gas pipe Squeeze Off unit for use on PE100 / SDR11 pipe at pressures up to 7 bar. Designed specifically for this application, the ‘controlled release’ technique showed benefits over conventional squeeze off in terms of reducing the risk of pipe damage, specifically crack propagation on release of squeeze. Tests were carried out by Transco up to 315mm diameter, however the unit has been designed to enable 400mm pipe to be installed. Facilitates 4 simultaneous squeeze points. ‘Pipe Stops’ are used to suit the diameter and wall thickness (SDR) of the pipe.

Product code	Description
089-000159	SOU 400 Hydraulic Squeeze Off Tool Slow Release



# SOU Controlled Release



*Stops can be custom made for any specified pipe. Codes as follows are for individual stops.*

## Pipe Stops – ‘Controlled Release’

A set consists of 8 x Stops, each Stop is unique for a fixed Diameter / SDR combination.

Pipe OD	SDR 11	SDR 17.6	SDR21	SDR26
250 Stop Set	716-000039	716-000038	716-000076	n/a
280 Stop Set	n/a	n/a	n/a	716-000166
315 Stop Set	716-000041	716-000040	716-000075	716-000069
355 Stop Set	716-000043	716-000042	716-000074	n/a
400 Stop Set	716-000045	716-000044	716-000073	n/a

## Ancillary Squeeze Off Equipment

### Re-rounding Tools



*Post Squeeze Rerounders*

## Post Squeeze Off Re-rounding Clamps

This range of post squeeze re-rounding clamps are diameter specific. They are designed to aid the re-rounding process after a PE pipe has been squeezed off and the Squeeze Off unit has been removed. The standard range covers from 63 to 250mm however ‘specials’ can be manufactured to order (see 400mm unit).

Product code	Pipe Size	Description
089-000290	63mm	Post Squeeze-off Re-rounding Clamp
089-000291	75mm	Post Squeeze-off Re-rounding Clamp
089-000292	90mm	Post Squeeze-off Re-rounding Clamp
089-000296	110mm	Post Squeeze-off Re-rounding Clamp
089-000293	125mm	Post Squeeze-off Re-rounding Clamp
089-000297	140mm	Post Squeeze-off Re-rounding Clamp
089-000298	160mm	Post Squeeze-off Re-rounding Clamp
089-000294	180mm	Post Squeeze-off Re-rounding Clamp
089-000299	200mm	Post Squeeze-off Re-rounding Clamp
089-000300	225mm	Post Squeeze-off Re-rounding Clamp
089-000295	250mm	Post Squeeze-off Re-rounding Clamp



*400mm Post Squeeze Rerounding Clamp*

## Universal Post-Squeeze Re-rounding Tool...

This range of post squeeze re-rounding tools can be supplied with liners to cover a range of pipe diameters.

Product code	Description	Liners - Dia. (mm)
089-000398	63 - 90mm Uni Post Squeeze Re-rounding Tool c/w Liners to enable use on 63, 75 and 90mm diameter	63, 75
089-000399	110 - 180mm Uni Post Squeeze Re-rounding Tool c/w Liners to enable use on 110, 125, 140, 160 and 180mm diameter	110, 125, 140, 160
089-000400	180 - 250mm Uni Post Squeeze Re-rounding Tool c/w Liners to enable use on 180, 200, 225 and 250mm diameter	180, 200, 225
673-000007	24 - 30mm Podger Spanner	



*Universal Post Squeeze Rerounders*



## Plastic Pipe Cutters

### Secateurs & Cutters



Hy-Ram offer a range of Secateurs from stock for cutting plastic pipes up to a maximum of 63mm diameter.

	Product code	Pipe Size Range	Description
A	117-000014	6 – 42mm	PE Pipe Cutter, ratchet action, plastic coated handles, suitable for cutting plastic pipe.
B	117-000190	6 – 42mm	PE Pipe Cutter, HEAVY DUTY, ratchet action, plastic coated handles, suitable for cutting plastic pipe.
C	117-000015	3 – 63mm	PE Pipe Cutter, ratchet action, plastic coated handles, suitable for cutting plastic pipe.



Facilitates fast precision cutting of all thick wall plastic tubing with spring loaded action for fast adjustment from size to size.

Product code	Pipe Size Range	Max Depth of Cut	Description	Spare Wheel Product Code
117-000143	6 - 67mm	7mm	Pipe Cutter	117-000146
117-000144	50 - 125mm	13mm	Pipe Cutter	117-000147
117-000145	110 - 168mm	16mm	Pipe Cutter	117-000148

### PE Hand Saw



Two sizes with comfort-fit handles: for plastic pipe and miscellaneous materials. CUTS ON PUSH AND PULL STROKE.

Product code	Pipe Size Range	Description	Spare Blade Product Code
WHE600	½" – 6"	18" Long Blade Saw	WHE610
WHE601	½" – 6"	18" Long Teflon Coated Saw	WHE611
WHE602	½" – 3"	13" Long Blade Saw	WHE612
WHE603	½" – 3"	13" Long Teflon Coated Saw	WHE613



# Guillotine Cutters



**virax**

Virax Guillotine



Reed Guillotine

Hy-Ram is a UK agent for both the Virax and Reed range of equipment including Guillotine Cutters. The Guillotine Cutters feature a hinged lower cross-beam that swings open and allows the Cutter to be positioned anywhere along the length of the pipe. The Cutters achieve a straight square cut and Cutter Blades are re-sharpenable and replaceable.

Product code	Pipe size max. OD mm	Max Wall Thickness	Description	Spare Blade Product Code
117-000081	125	11.4mm	VIRAX Guillotine Cutter	041-000023
117-000030	225	18.0mm	VIRAX Guillotine Cutter	041-000015
117-000071	315	18.0mm	VIRAX Guillotine Cutter (Not suitable for SDR11)	041-000021
REED04604	63 - 125	12.7mm	Reed Guillotine Cutter HPC4	REED40027
REED04608	90 - 225	23.5mm	Reed Guillotine Cutter HPC8	REED40329
REED04612	114 - 350	29.4mm	Reed Guillotine Cutter HPC12	REED94903

# Rotary Cutters



Reed Plas  
Hand-over-Hand



Reed Plas  
In-Line



The Reed range of Plas Hand-over-Hand and Plas In-Line Rotary Cutters offer an excellent user friendly solution for cutting either PE or PVC pipe in-trench or above ground.

Product code	Pipe Range		Max Wall Thickness	Description	App
	Inch - nom	Actual OD mm			
REED04463	4 - 8	106 - 240	51	Plas Hand-over-Hand	PVC
REED04464	4 - 8	106 - 240	38.1	Plas Hand-over-Hand	PE
REED04468	4 - 12	106 - 335	38.1	Plas Hand-over-Hand	PE
REED04469	4 - 12	106 - 335	51	Plas Hand-over-Hand	PVC
REED04470	6 - 12	160 - 335	For all PVC - up to 25.4. For PE up to 335mm - 51mm WT max. For PE up to 500mm - 38mm WT max. For PE up to 800mm - 25.4mm WT max.	Plas In-Line	PVC
REED04474	6 - 12	160 - 335		Plas In-Line	PE
REED04475	14 - 18	335 - 500		Plas In-Line	PVC
REED04477	14 - 18	335 - 500		Plas In-Line	PE
REED04480	14 - 24	335 - 630		Plas In-Line	PVC
REED04483	14 - 24	335 - 630		Plas In-Line	PE
REED04485	14 - 28	335 - 800		Plas In-Line	PVC
REED04487	14 - 28	335 - 800		Plas In-Line	PE





## Mains & Service Drilling

# Hy-Ram No1 Underpressure Drilling Machine



Saddles:

Universal Undercarriage

Product code	Description
168-000061	Rubber Saddle Ring
080-000010	2" Saddle
080-000001	3" Saddle
080-000002	4" Saddle
080-000003	5" Saddle
080-000004	6" Saddle
080-000012	7" Saddle
080-000005	8" Saddle
080-000013	9" Saddle
080-000006	10" Saddle
080-000007	12" Saddle
080-000037	14" Saddle

Product code	Description
080-000014	15" Saddle
080-000015	16" Saddle
080-000016	18" Saddle
080-000017	20" Saddle
080-000018	21" Saddle
080-000019	22" Saddle
080-000020	24" Saddle
080-000021	27" Saddle
080-000022	30" Saddle
080-000023	33" Saddle
080-000024	36" Saddle
196-000001	Universal Undercarriage

Well proven and robust Underpressure drilling and tapping machine for inserting ferrules into live water mains up to 48" diameter. The machines can either drill directly into the main, or using a universal undercarriage, through a bossed saddle strap. The Hy-Ram No.1 is compatible with other manufacturer's equipment, making spare parts and tools largely interchangeable.

Supplied in a strong steel case with all tools and accessories (excluding saddles, drill taps and undercarriages). Maximum working pressure 16bar.

### No.1 Underpressure Drilling Machine Kit:

Item	Product code	Description
	130-000039	Hy-Ram No.1 Drilling Machine Kit ½" - 1" BSP

#### Kit Includes:

A		Hy-Ram No1
B	711-000001	Piston Spanner
C	168-000060	Felt & Leather Pad
D	711-000004	Ratchet Brace
E	079-000002	Morse Chain (per meter)
F	270-000001	½" - 1" Ferrule Key
G	711-000003	Ferrule Spanner
H	129-000002	Drill Drift
I	077-000008	Pull Up Hook
J	250-000005	Nut for Pull Up Hook
K	760-000010	Half Round Piece
L	045-000053	Steel Box
M	270-000009	Allen Key
N	300-000008	¾" - 1" Ferrule Adapter

### Drill Taps:



Product code	Description
130-000004	½" Drill Tap HSS
130-000005	¾" Drill Tap HSS
130-000006	1" Drill Tap HSS



# Hy-Ram Universal



## Accessories:

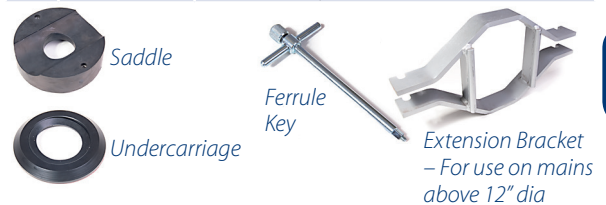
Product code	Description
270-000007	1/2"-1" Pass Ferrule Key
270-000008	1 1/2"-2" Pass Ferrule Key
080-000034	Universal Undercarriage 2 1/4"
080-000035	Universal Undercarriage 3"
080-000036	Universal Undercarriage 3 1/2"
009-000019	Extension Bracket Hy-Ram Uni
300-000063	Quadrina Carrier 2"
300-000123	Quadrina Carrier 2 1/2"

## Hy-Ram Universal Underpressure Drilling Machine

Underpressure Drilling and Tapping Machine for inserting ferrules, nipples (Quadrina type) and plugs into live Gas and Water mains up to 48" diameter.

Dependant on pipe specification, the operator can choose from solid drill-taps, holesaw taps or screw-ended taps with cup drills. Maximum working pressure 10 bar on body.

Ref	Product code	Description
	130-000038	Hy-Ram Universal Drilling Machine Kit 1/2" - 2" BSP
Kit Includes:		
A		Hy-Ram Universal Drilling Machine
B	711-000004	Ratchet Brace
C	079-000002	Morse Chain (per metre)
D	250-000005	Nut for Pull Up Hook
E	711-000011	Valve Spindle Spanner
F	711-000003	Ferrule Spanner
G	711-000001	Piston Spanner
H	270-000054	Allen Key
I	300-000012	Ferrule Carrier 1/2"
J	300-000007	Ferrule Carrier 3/4"
K	300-000006	Ferrule Carrier 1"
L	300-000013	Ferrule Carrier 1 1/2"
M	300-000014	Ferrule Carrier 2"
N	129-000009	Drill Drift
O	077-000008	Pull Up Hook
O	520-000013	Clevis Pin
P	045-000056	Steel Box (Hy-Ram Universal)



## Saddles

Product code	Description	Product code	Description
080-000025	Saddle 2"	080-000030	Saddle 8 - 10"
080-000026	Saddle 3"	080-000031	Saddle 11 - 16"
080-000027	Saddle 4"	080-000032	Saddle 18 - 24"
080-000028	Saddle 5"	080-000033	Saddle 26 - 48"
080-000029	Saddle 6-7"		



# Hy-Ram Universal

## Drill Taps/Cutters:

Product code	Description
130-000028	1/2" HSS Solid Pass Drill Tap
130-000029	3/4" HSS Solid Pass Drill Tap
130-000030	1" HSS Solid Pass Drill Tap
130-000021	1 1/2" Screw Ended Drill Tap
130-000022	2" Screw Ended Drill Tap
130-000013	1-1/2" Cup Drill
130-000014	2" Cup Drill
130-000015	3/4" Holesaw Tap
130-000016	1" Holesaw Tap

Product code	Description
130-000017	1 1/4" Holesaw Tap
130-000018	1-1/2" Holesaw Tap
130-000019	2" Holesaw Tap
117-000020	Holesaw Cutter 24mm (3/4" BSP)
117-000021	Holesaw Cutter 30mm (1" BSP)
117-000022	Holesaw Cutter 38mm (1 1/4" BSP)
117-000023	Holesaw Cutter 44mm (1 1/2" BSP)
117-000024	Holesaw Cutter 56mm (2" BSP)

## Hy-Ram Junior J1



### J1 Drilling Machine & Accessories

Facilitates underpressure drilling on service type fittings, especially useful where service connections are made through saddle straps, clamps and welded nipples where inserting directly into the main is not possible.

Description	Application	Cutter Sizes	Body Adaptors
Hy-Ram J1-1 Underpressure Drilling Machine	Drilling through Saddle Straps, Saddle Clamps, Ferrule Straps and Welded Nipples.	19mm & 24mm 3/4" & 1" AC 3/4" & 1" PVC	3/4" & 1" BSP

Ref	Product code	Description
	130-000165	Junior J1-1 Drilling Machine Kit
Kit Includes		
A		Junior J1-1 Drilling Machine
B	661-000052	J1 Holesaw Spindle
C	300-000004	10.5mm Plug Insertor
D	300-000005	8.00mm Plug Insertor
E	711-000007	Ratchet Spanner
F	300-000001	1" Ferrule Adaptor
G	300-000002	3/4" Ferrule Adaptor
H	363-000003	1 1/4" BSP Gate Valve (c/w 2 x 1" bushes)
I	045-000057	Black Carrying Case 20" Auto Latch

### Cutters & Accessories

Product code	Description
130-000169	3/4" AC Cutter
130-000168	1" AC Cutter
130-000166	3/4" PVC Cutter
130-000167	1" PVC Cutter

Product code	Description
117-000058	Holesaw Cutter 19mm (1/2" BSP)
117-000020	Holesaw Cutter 24mm (3/4" BSP)
640-000055	J1 Drill Body Spacer (for use with EBCO Gunmetal Self Tapping Ferrule Straps)



# Hy-Ram Junior J2



## J2 Drilling Machine & Accessories

Facilitates underpressure drilling on service type fittings, especially useful where service connections are made through saddles straps, clamps and welded nipples where inserting directly into the main is not possible. Robust, compact machine - making use of the tried and tested bridle and feedscrew design. Comes complete with strong carrying case and the option of various adaptors to suit connection for different applications.

Description	Application	Cutter Sizes	Body Adaptors
Hy-Ram J2 Underpressure Drilling Machine	Drilling through larger Saddle Straps, Saddle Clamps, Ferrule Straps and Welded Nipples also compatible for use with various drilling saddles through a gate valve.	30mm & 38mm	1 ½", 2", 2 ½" BSP



## Cutters & Accessories

Product code	Description
117-000021	Holesaw Cutter 30mm (1" BSP)
117-000173	Holesaw Cutter 38mm (1 ¼" BSP)
130-000161	6mm Pilot Drill - (30mm)
130-000160	6mm Pilot Drill - (38mm)
661-000045	2" Extension Spindle
661-000046	3" Extension Spindle
661-000047	4" Extension Spindle

## J2 Gas Drilling Machine

This kit is as per the standard J2 except the two adaptors (1 ½"–2" BSP & 1 ½"–2½") are not included in the kit and the body of the drill has a 2" BSPT thread to fit onto gas connections.

Product code	Description
130-000178	Junior J2 Drilling Machine c/w 2" BSPT Body for Gas Applications

Ref	Product code	Description
	130-000138	Junior J2 Drilling Machine complete
Kit Includes		
A		Junior J2 Drilling Machine
B	661-000050	Drill Spindle (38mm Holesaw)
C	711-000004	Ratchet Spanner
D	661-000051	Drill Spindle (30mm Holesaw)
E	711-000091	Box Spanner
F	094-000012	Anti Lock Collar (30mm Holesaw)
F	094-000013	Anti Lock Collar (38mm Holesaw)
G	300-000138	Cutter Adaptor 38mm
H	250-000032	⅝" UNF Nut
I	270-000053A	3mm Allen Key
J	300-000178	Adaptor 1 ½" – 2" BSP
K	300-000179	Adaptor 1 ½" – 2 ½" BSP
L	130-000161	6mm Pilot Drill - (30mm)
M	130-000160	6mm Pilot Drill - (38mm)
N	045-000057	Tool Box





# Hy-Ram Junior J3



## J3 Drilling Machine & Accessories

Underpressure Drilling Machine designed specifically for drilling through Hy-Ram and Erhard type service saddles with 1 1/2" BSP outlet port. The brief was for a robust, reliable, UK quality drilling machine that could stand up to field use.

Description	Application	Cutter Sizes	Body Adaptors
Hy-Ram J3 Underpressure Drilling Machine	Drilling through service saddles.	38mm	1 1/2" BSP

Ref	Product code	Description
	130-000127	J3 Underpressure Drill Kit
Kit Includes		
A		J3 Underpressure Drill
B	661-000048	Drill Spindle
C	711-000091	Box Spanner
D	270-000053	Allen Key
E	300-000129	Cutter Adaptor
F	130-000160	Pilot Drill
G	711-000004	Ratchet Spanner
H	045-000057	Tool Box

## Holesaw Cutters & Pilot Drills

Product code	Description
117-000173	Holesaw Cutter 38mm (1 1/4" BSP)
117-000293	32mm Carbide Tipped PE Cutter
130-000160	6mm Pilot Drill
661-000045	2" Extension Spindle
661-000046	3" Extension Spindle
661-000047	4" Extension Spindle



Holesaws Cutter

Pilot Drill

Extension Spindle



# Hy-Ram LR67



## Holesaw Cutters & Pilot Drills

Product code	Description
117-000025	67mm Standard Holesaw
117-000039	57mm Standard Holesaw
117-000113	67mm Carbide Holesaw
117-000093	57mm Carbide Holesaw
117-000262	57mm Carbide Tipped PE Cutter
117-000263	67mm Carbide Tipped PE Cutter
117-000271	76mm Standard Holesaw
117-000273	76mm Carbide Holesaw
117-000298	76mm Carbide Tipped PE Cutter
117-000275	79mm Standard Holesaw
117-000277	79mm Carbide Holesaw
117-000296	79mm Carbide Tipped PE Cutter
130-000112	12mm Pilot Drill (Std.)
130-000121	12mm Pilot Drill (Carbide tipped)
130-000221	Coupon Retaining Pilot Drill
300-000134	Cutter Adaptor (Coupon Retaining only)



Bi-Metal Holesaw



Carbide Holesaw



Pilot Drill



Coupon Retaining Pilot Drill

## Hy-Ram LR67 Drilling Machine & Accessories

Underpressure Drilling Machine designed specifically for drilling through the Hy-Ram Hi-Flow Drilling Saddle.

Drills up to 79mm diameter with cutters available for CI, DI, A/C, steel, PE and PVC pipes. The design incorporates an 80mm flange for connecting directly onto the Hi-Flow saddle. Maximum working pressure 16bar.

A pneumatic drive is also available.

Description	Application	Cutter Sizes	Flange Sizes
Hy-Ram LR67 Drilling Machine	Water Pipes – Through 80mm flange. Designed specifically for use with the Hy-Ram Hi-Flow.	57, 67, 76 & 79mm (standard)	80mm (standard)

Product code	Description
130-000111	LR67 Drilling Machine Kit

Ref	Product code	Description
	130-000111	LR67 Drilling Machine Kit
Kit Includes		
A		LR67 Drilling Machine
B	661-000038	Drill Spindle
C/D	300-000085	Cutter Adapter Standard
C/D	300-000134	Cutter Adaptor (Coupon Retaining only)
C/D	676-000032	Centralising Disc 57mm
C/D	676-000030	Centralising Disc 67mm
C/D	676-000042	Centralising Disc 79mm
E	175-000021	Anti Seize Ring
F	130-000112	12mm Pilot Drill (Std.)
G	270-000054	5mm Allen Key
H	270-000053	3mm Allen Key
I	711-000039	13mm Open Ended Spanner
J	711-000037	18mm Open Ended Spanner
K	711-000035	36mm Open Ended Spanner
L	711-000004	Ratchet Spanner
M	045-000100	Strong Tool Box

## Pneumatic Air Wrench

Product code	Description
711-000024	Pneumatic Air Wrench (Torque 60)
300-000072	Air Wrench Adaptor



Range of Test Pumps available



Pneumatic Air Wrench



Typical Application



## Branch Drilling

# Hy-Ram Compact 4



### Hy-Ram C4 Drilling Machine & Accessories

Compact and lightweight hand operated Underpressure Branch Drilling Machine for 'live' drilling into Water and Gas lines.

The C4 drills through a gate valve and is supplied as standard with 2 x 'screw-on' Flanges to suit 80 and 100 NP16 Flanged Valves. Cutters are available for both metallic and plastic pipes.

Ref	Product code	Description
	130-000065	Compact 4 Complete Kit
Kit Includes:		
A		Compact 4 Drilling Machine
B	310-000014	100mm Flange
C	310-000012	80mm Flange
D	711-000004	Ratchet Spanner
E	643-000184	Spindle & Cutter drive
F	045-000055	Steel Box
G	643-000053	Ratchet Spanner Extension
H	023-000041	½" Tommy Bar
I	270-000054	Allen Key 5mm
J	270-000053	Allen Key 3mm
K	130-000197	10mm Pilot Drill



Coupon Retaining  
Pilot Drill

Description	Application	Cutter Sizes	Flange Sizes
Hy-Ram C4 Drilling Machine	Water or Gas Pipes* - Makes up to 4" Branch connections (Up to 83mm diameter hole).	70 and 83mm (standard)	80 and 100mm (standard)

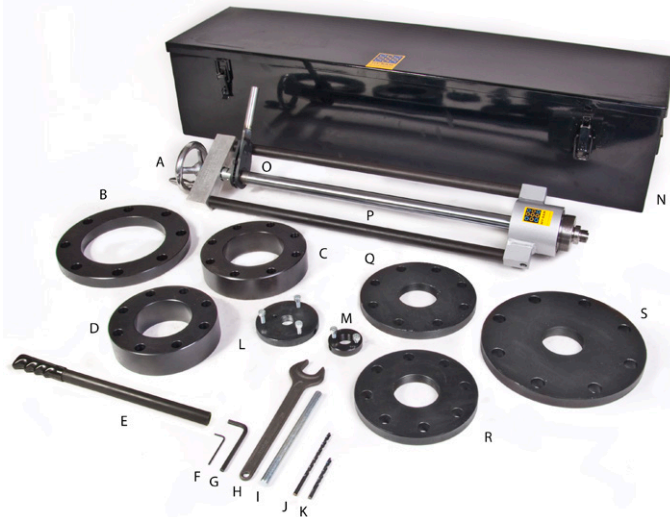
\*Specify which option when ordering

### Holesaw Cutters & Pilot Drills

Product code	Description
117-000032	70mm Bi-Metal Holesaw Cutter
117-000033	83mm Bi-Metal Holesaw Cutter
117-000099	70mm Carbide Tipped Holesaw Cutter
117-000100	83mm Carbide Tipped Holesaw Cutter
117-000237	70mm Carbide Tipped PE Cutter
117-000238	83mm Carbide Tipped PE Cutter
130-000045	6mm Pilot Drill (Older Drills)
130-000197	10mm Dia. Pilot Drill – C4
130-000199	Coupon Retaining Pilot Drill – C4



# Hy-Ram Compact 6



Ref	Product code	Description
	130-000064	C6 Complete Kit **
Kit Includes		
A		C6 Drilling Machine
B	640-000021	150mm Spacer
C	640-000020	100mm Spacer
D	640-000019	80 mm Spacer
E	643-000053	Ratchet Handle
F	270-000053	Allen Key 3mm
G	270-000054	Allen Key 5mm
H	711-000017	30mm Open Ended Spanner
I	023-000041	½" Tommy Bar
J	130-000201	10mm Dia. Pilot Drill – C6 (70 & 83mm Holesaws)
K	130-000202	10mm Dia. Pilot Drill – C6 (140mm Holesaw)
L	300-000041	Cutter Drive Adaptor (for 140mm Cutter)
M	300-000115	Cutter Drive Adaptor (for 70 and 83mm Cutters)
N	045-000073	Strong Steel Box
O	711-000016	Ratchet Spanner
P	643-000151	Drill Spindle
Q	310-000012	80mm Flange
R	310-000014	100 mm Flange
S	310-000021	150mm Flange

\*\* Standard Kit includes all accessories above apart from Holesaw Cutters

Description	Application	Cutter Sizes	Flange Sizes
Hy-Ram C6 Drilling Machine	Water or Gas Pipes* - Makes up to 6" Branch connections (Up to 140mm diameter hole).	70, 83 and 140mm (standard)	80, 100 and 150mm (standard)

\* Specify which option when ordering

## Hy-Ram C6 Drilling Machine & Accessories

Compact and lightweight hand operated Underpressure Branch Drilling Machine for 'live' drilling into Water and Gas lines. The C6 drills through a gate valve and is supplied as standard with 'screw-on' Flanges to suit 80, 100 and 150mm NP16 Flanged Valves. Cutters are available for both metallic and plastic pipes.

### Holesaw Cutters & Pilot Drills

Product code	Description
117-000032	70mm Bi-Metal Holesaw Cutter
117-000033	83mm Bi-Metal Holesaw Cutter
117-000049	140mm Bi-Metal Holesaw Cutter
117-000099	70mm Carbide Tipped Holesaw Cutter
117-000100	83mm Carbide Tipped Holesaw Cutter
117-000126	140mm Carbide Tipped Holesaw Cutter
117-000237	70mm Carbide Tipped PE Cutter
117-000238	83mm Carbide Tipped PE Cutter
117-000239	140mm Carbide Tipped PE Cutter
130-000072	6mm Dia. Pilot Drill (70 & 83mm Holesaws)
130-000070	6mm Dia. Pilot Drill (140mm Holesaw)
130-000201	10mm Dia. Pilot Drill (70 & 83mm Holesaw)
130-000202	10mm Dia. Pilot Drill (140mm Holesaw)
130-000199	Coupon Retaining Pilot Drill – C6 (70 & 83mm Holesaws)
130-000198	Coupon Retaining Pilot Drill – C6 (140mm Holesaw)



### Additional Gas Accessories

Facilitates the use of the drill on gas type Knife gate valves.

Product code	Description
640-000019	80mm Spacer
640-000020	100mm Spacer
640-000021	150mm Spacer
640-000033	Spacer Spigot 80mm NP16
640-000034	Spacer Spigot 100mm NP16
640-000035	Spacer Spigot 150mm NP16





# Selecting the Correct Drilling Machine



MACHINE	HY-RAM NO.1	HY-RAM UNIVERSAL	HY-RAM COMPACT 4	HY-RAM COMPACT 6	HY-RAM J1
Product Code	130-000039	130-000038	130-000065	130-000064	130-000165
Capacity	1/2" - 1"	1/2" - 2"	3" - 4"	3" - 6"	1/2" - 1"
Operation	Drill & Tap	Drill & Tap	Drill	Drill	Drill
Working Pressure	16BAR	10BAR*	16BAR	16BAR	16BAR
Weight (Complete Kit)	23Kg	34Kg	42Kg	72Kg	6Kg
Service Use	Water	Water	Water/Gas	Water/Gas	Water
Standard Traverse	N/A	N/A	400mm	640mm	N/A
Option For Increased Traverse	No	No	No	No	No
Recommended Pipe Range	2" - 48"	2" - 72"	Saddle Dependant	Saddle Dependant	Saddle Dependant
Drill Tap Shank	TALBOT	WASK/PASS	N/A	N/A	N/A
Page Reference	p39	p40	p44	p45	p41



MACHINE	HY-RAM J2	HY-RAM J2 (GAS)	HY-RAM J3	HY-RAM LR67
Product Code	130-000138	130-000178	130-000127	130-000111
Capacity	1 1/2" - 2 1/2"	2" BSPT	1 1/4"	3"
Operation	Drill	Drill	Drill	Drill
Working Pressure	16BAR	16BAR	16BAR	16BAR
Weight (Complete Kit)	16Kg	16Kg	14.5Kg	18Kg
Service Use	Water	Gas	Water	Water
Standard Traverse	N/A	N/A	N/A	183mm
Option For Increased Traverse	Yes	Yes	No	Yes
Recommended Pipe Range	Saddle Dependant	Saddle Dependant	Saddle Dependant	3" - 12"
Drill Tap Shank	N/A	N/A	N/A	N/A
Page Reference	p41	p42	p42	p43

Note: machine working pressures marked \* can be used for 16 bar applications - refer to our technical department before such use.

Note: where increased traverse available, please contact our technical department for advice.



## Drill Taps & Cutters

# Drill Taps & Holesaw Cutters



Hy-Ram supply a wide range of Drills, Drill Taps, Holesaw Taps, Screw Ended Taps, Cup Drills and bespoke Cutters to suit ALL popular drilling and tapping machines both in the UK and USA. We have products compatible with the following machines: Hy-Ram, WASK, Peart, Talbot, Pass and Mueller.

*Reground and Re-tipping service now available on selected ranges... ask our Sales Office for more details!*

## Solid No1 Drill Taps

*Used with Hy-Ram No.1 & Talbot No.1 drilling machines.*

Product code	Description
130-000004	1/2" Drill Tap HSS
130-000005	3/4" Drill Tap HSS
130-000006	1" Drill Tap HSS

## Screw Ended Taps & Cup Drills

*Used with Talbot No. 2 & No.3 drilling machines only.*

Product code	Description
130-000026	1 1/2" Screw Ended Tap
130-000027	2" Screw Ended Tap
130-000013	1-1/2" Cup Drill
130-000014	2" Cup Drill

## Holesaw Taps & Cutters

Separate Holesaw Taps and Cutters are an economical method for drilling and tapping mains.

*Used with Hy-Ram Universal Drill, Pass Universal Drill and WASK drilling equipment.*

Product code	Description	Holesaw Cutter	Size/Type
130-000015	3/4" Holesaw Tap	117-000020	24 mm Bi-Metal
130-000016	1" Holesaw Tap	117-000021	30 mm Bi-Metal
130-000017	1 1/4" Holesaw Tap	117-000022	38 mm Bi-Metal
130-000018	1-1/2" Holesaw Tap	117-000023	44 mm Bi-Metal
130-000019	2" Holesaw Tap	117-000024	56 mm Bi-Metal
		117-000095	56mm Carbide



Talbot Style Tang



Drill Tap



Talbot Style Tang



Cup Drill



Screw Ended Tap



Pass/WASK  
Style Tang



Holesaw Tap



Holesaw Cutters



# Drill Taps & Holesaw Cutters



Pass/WASK  
Style Tang



Drill Tap



Pass/WASK  
Style Tang



Screw Ended Tap/Cup Drill



Bi Metal Cutters



Carbide Tipped MPH Cutters

## Solid Drill Taps

Used with Hy-Ram Universal Drill, Pass Universal Drill and WASK drilling equipment.

Product code	Description
130-000028	1/2" HSS Solid Pass Drill Tap
130-000029	3/4" HSS Solid Pass Drill Tap
130-000030	1" HSS Solid Pass Drill Tap

## Screw Ended Taps & Cup Drills

Used with Hy-Ram Universal Drill, Pass Universal Drill and WASK drilling equipment.

Product code	Description
130-000021	1 1/2" Screw Ended Drill Tap
130-000022	2" Screw Ended Drill Tap
130-000013	1-1/2" Cup Drill
130-000014	2" Cup Drill

## Starrett Bi Metal Constant Pitch Holesaws...

have 6 teeth per inch and are ideal for thinner gauge materials. Constant Pitch provides a smooth cut, with minimal tendency to bite or snag on contact with irregular surfaces.

**Advantages:** Smooth cut on thinner gauge materials.  
Minimal tendency to bite or snag on thinner gauge materials.

## Starrett Tungsten Carbide Tipped MPH Cutters...

are the ideal cutter for PE pipe, modified for maximum performance when used in conjunction with Hy-Ram drilling machines.

**Advantages:** Fewer teeth and a slotted design give a smooth cut with minimum heat build-up when cutting plastic. Provides excellent performance when cutting even thick walled PE pipe.

Product code	Size	Cutter Type	Drive Method*	To Suit
117-000293	32mm	Carbide Tipped PE Cutter	LH	J2/J3
117-000262	57mm	Carbide Tipped PE Cutter	LH	LR67
117-000263	57mm	Carbide Tipped PE Cutter	LH	LR67
117-000237	70mm	Carbide Tipped PE Cutter	LH	C4/C6
117-000238	83mm	Carbide Tipped PE Cutter	LH	C4/C6
117-000239	140mm	Carbide Tipped PE Cutter	LH & ED	C6



## Starrett Tungsten Carbide Tipped Constant Pitch...

have tough tungsten carbide tipped teeth that have a positive cutting angle which provides fast and efficient removal of chips and swarf.

**Advantages:** Tungsten carbide tipped teeth provides superb product life and cutting performance. High cutting accuracy.



Carbide Tipped Cutters

Cutter Type	Application
Bi-Metal	Cast Iron
	Ductile Iron (Bit. Lined)
	Steel
Carbide Tipped	Ductile (Cement Lined)
	PE
	PVC
	AC
	Clay

### Please note...

Hy-Ram always recommend the use of Starrett cutters due to the backing plate being thicker than other manufacturers hence offering added strength.

\*\* Due to the nature of all holesaws, the threads are not always sufficiently strong to hold securely to the arbour. For this reason, for certain holesaw sizes, the threads are 'drilled out' and 2 x location holes added that then form the method of 'drive' from the corresponding pins on the Tap.

Product code	Size	Cutter Type	Drive Method*	To Suit
117-000058	19mm	Bi-Metal	T	Junior J1
117-000020	24mm	Bi-Metal	T	Junior J1
117-000020	24mm	Bi-Metal	T	¾" Holesaw Tap
117-000021	30mm	Bi-Metal	T	Junior J2
117-000021	30mm	Bi-Metal	T	1" Holesaw Tap
117-000162	35mm	Bi-Metal	T	Hydrant Wizard
117-000173	38mm	Bi-Metal	LH	Junior J2/Junior J3
117-000022	38mm	Bi-Metal	T	1 ¼" Holesaw Tap
117-000023	44mm	Bi-Metal	LH	1 ½" Holesaw Tap
117-000024	56mm	Bi-Metal	LH	2" Holesaw Tap
117-000095	56mm	Carbide Tipped	LH	2" Holesaw Tap
117-000039	57mm	Bi-Metal	LH	LR67
117-000093	57mm	Carbide Tipped	LH	LR67
117-000025	67mm	Bi-Metal	LH	LR67
117-000113	67mm	Carbide Tipped	LH	LR67
117-000032	70mm	Bi-Metal	LH	Compact 4/Compact 6
117-000099	70mm	Carbide Tipped	LH	Compact 4/Compact 6
117-000033	83mm	Bi-Metal	LH	Compact 4/Compact 6
117-000100	83mm	Carbide Tipped	LH	Compact 4/Compact 6
117-000049	140mm	Bi-Metal	LH & ED	Compact 6
117-000126	140mm	Carbide Tipped	LH & ED	Compact 6

### \* Key:

T = THREADED LH = Pin Locating Holes added and central thread drilled out\*\*  
ED = Extended Depth





## Universal Valve Keys

### Hy-Ram UniKey



Steel UniKey Kit



Aluminium UniKey

UniKey Head



Steel UniKey Mini



One Key fits any Valve or Hydrant  
Regardless of Age

Steel UniAdapter  
Small

The design philosophy is that 'one key fits all' – therefore the UniKey will 'fit' all known valve and hydrant spindle shapes and sizes and cater for broken or missing stem caps. It can also be used on irregular shapes such as stop tap handles... even if they are damaged or incomplete!

Used in conjunction with the shaft extensions the user is also equipped to operate 'deeper' valves whilst reducing the risk of physical strain injuries.

#### Key features:

- One size fits all design
- Robust construction, welded and powder coated
- Available individually or as a kit
- Integral 'Tee' Handle with 'Chisel' end
- Shaft extensions available
- Suitable for gas and water valves, hydrants, etc

#### Features:

The UniKey is manufactured in two sizes: a 'Small' Key designed around Water Valves on pipes up to 12" (300mm) diameter and Fire Hydrants and a 'Large' Key for use on valves above 12" diameter.

The Kit also comes complete with two shaft extensions: 450mm and 750mm long. The UniKey with integrated 'Tee' Handle is available in the following formats...

#### UniKeys

Product code	Description
270-000139	Hy-Ram Steel UniKey Kit c/w Large (95 dia.) and Small (80 dia.) Keys, 2 x Tee Bar, 2 x Shaft Extensions and Steel Box
270-000141	Hy-Ram Steel UniKey Large (95 dia) c/w integral Tee Bar
270-000142	Hy-Ram Steel UniKey Small (80 dia) c/w integral Tee Bar
270-000147	Hy-Ram Aluminium Shaft UniKey Small (80 dia) c/w integral Tee Bar
270-000237	Hy-Ram Steel UniKey Mini (60 dia) c/w integral Tee Bar

#### UniKey Accessories

Product code	Description
270-000143	12" UniKey Extension
270-000144	24" UniKey Extension
520-000083	UniKey Lock Pin

#### UniAdaptors

Product code	Description
270-000239	Hy-Ram UniAdaptor Small (80 dia.)
270-000238	Hy-Ram UniAdaptor Mini (60 dia.)
270-000261	Hy-Ram UniAdaptor Small (80 dia.) (Germany)
270-000262	Hy-Ram UniAdaptor Mini (60 dia.) (Germany)



## Specialist Water Valve & Saddles

# Hy-Ram Hi-Flow Drilling Saddles

### *The System*

The Hy-Ram 'Hi-Flow' System consists of a Drilling Saddle, Flanged Riser Tube and the LR67 Drilling Machine. The system allows underpressure installation of fire hydrants onto existing mains, avoiding shutdown and subsequent recharging. It is also an ideal method of installing Flushing Points adjacent to 'normally kept shut' boundary valves.

The system enables holes up to 67mm diameter to be cut into pressurised water mains, giving excellent flow rate characteristics. The versatility of the system will allow for other applications in the water network.

### *The Benefits*

- Underpressure installation with no shut down
- Excellent flow rate characteristics
- Robust pipe clamp gives a rigid base for mounting accessories
- Supports the pipe material in the area of the drilled hole
- Simple and quick to install
- Substantial cost savings
- Suits CI, DI, PVC and certain AC pipes up to 12" / DN300

### *Application / Specification*

- Designed for all potable water and wastewater applications up to a working pressure of 16 bar
- All materials and coatings are WRAS approved



### *The Identified Uses*

- Underpressure installation of a fire hydrant
- Underpressure installation of an 'OXO' type flushing point either side of a boundary valve. (In the case of both the above applications, it makes future changing of the hydrant achievable without the need to shut down)
- Taking samples from the top of the pipe wall (67mm coupon)
- Forming a by-pass for the installation of a PRV or water meter
- Underpressure access into the main, for example leak detection (Hydra phone) insertion point CCTV insertion point, Probe insertion point, Flow meter, Chlorination point, Temperature monitor point, Chemical analysis point, Correlator point

### *Series 3 – with 80mm Clear bore...*

With the popularity of DN80 'through bore' Fire Hydrants spreading, Hy-Ram recently introduced the Series 3 Hi-Flow with a clear 80mm bore. Following the initial concept of simplicity and 'one fitting does all', the Hi-Flow remains a 'one-piece' fitting. There is no need for doubling up or using two fittings which adds extra flanged joints and greater potential for leaks.

### *Key benefits of the Series 3...*

- Clear 80mm vertical bore
- 'Solid' under-clamp ensuring good connection with the main
- The Hi-Flow bolts directly to the main and offers a low 'stack height'
- No retraining is required... method of installation and drilling equipment remains the same



*LR67 Drilling Machine  
Connected to Hi-Flow  
Drilling Saddle*



*LR67 Drilling Machine  
used in conjunction  
with Hi-Flow &  
Sandwich Valves*



# Hy-Ram Hi-Flow Drilling Saddles

Hi-Flow Drilling Saddle Series 3 - with 80mm clear bore

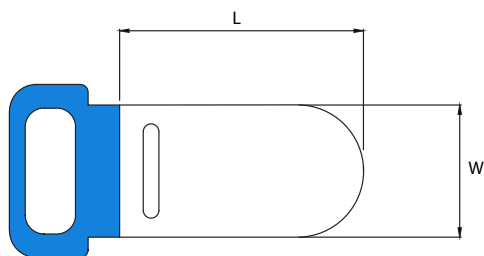


Hi-Flow Drilling Saddle Series 2 - with 70mm bore



Hi-Flows for use on Metallic and certain AC pipes:

DN mm	DN inch	Pipe Tol. mm (OD)	Hi-Flow for Metallic Pipe	Hi-Flow for PVC Pipe	Series	Max Recommended Cutter Size	Max Working Pressure BAR
80	3	88-103	080-000245	080-000259	3	57mm	16
100	4	114-125	080-000246	080-000260	3	79mm	16
125	5	140-153	080-000247	080-000261	3	79mm	16
150	6	168-180	080-000248	080-000262	3	79mm	16
175	7	193-208	080-000249	080-000263	3	79mm	16
200	8	219-235	080-000250	080-000264	3	79mm	16
225	9	244-262	080-000251	080-000265	3	79mm	16
250	10	273-290	080-000252	080-000266	3	79mm	16
300	12	324-338	080-000253	080-000267	3	79mm	16
110	-	110mm	-	080-000108	2	67mm	16
160	-	160mm	-	080-000109	2	67mm	16



Note! Series 2 & Series 3 Hi-Flows have different Sized Valve Plates

## Hi-Flow Valve Accessories

Product code	Description
645-000176	Valve Plate Series 2 (110mm & 160mm Only)
645-000243	Valve Plate Series 3
603-000003	Lever
605-000017	Silicone Grease 500g tub
603-000003	Lever

## Hi-Flow Valve Plate Dimensions

Product code	Type	Length (L)	Width (W)
645-000176	Series 2 - 70mm Bore	155mm	84mm
645-000243	Series 3 - 80mm Bore	172mm	100mm

## Typical Procedure for Installation of a Fire Hydrant Using Hi-Flow

Figure 1: Drill through top of pipe

Figure 2: Withdraw Drill Spindle, remove Cover Plate and insert Valve Plate

Figure 3: Remove Drilling Machine

Figure 4: Assemble Fire Hydrant (Ensure it is in closed state)

Figure 5: Withdraw Valve Plate and reassemble Cover Plate



Automated Pneumatic Pressure Test Rig for Hi-Flow Performance Testing

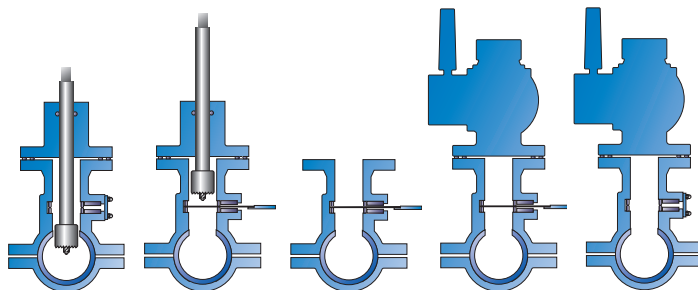


FIG 1

FIG 2

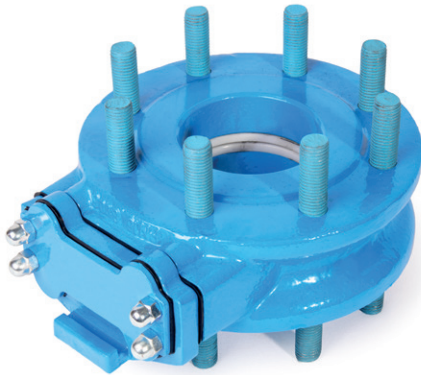
FIG 3

FIG 4

FIG 5

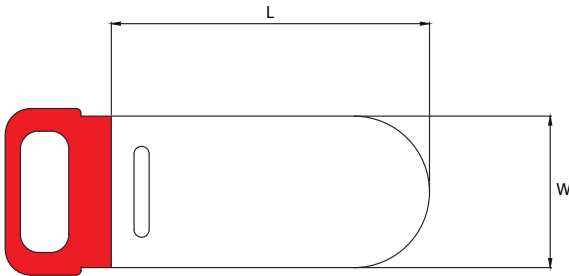


# Hy-Ram Sandwich Valve (MK 3)



MK3 Sandwich Valve with  
80mm Clear Bore

*Note! MK1 & MK2 Sandwich Valves have  
Different Valve Plate to MK3*



## The Benefits

- Can be installed in a variety of situations in order to minimise future shutdowns
- Simple and quick to install
- Excellent for use in tight access trenches where other services may be causing an obstruction
- Face to face dimension of only 70mm compared to 203mm for a traditional BS:5163 R.S. Gate Valve
- Requires minimal excavation when used in conjunction with an Underpressure Tee and Drilling Machine
- Due to competitive pricing, more valves can be afforded within the network, giving greater flexibility and better control

## Application / Specification

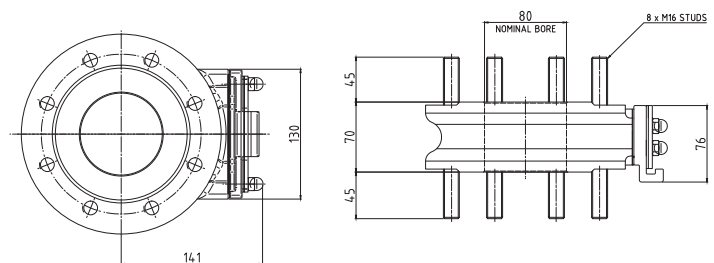
- All materials and coatings are WRAS approved

## Sandwich Valve Accessories

Product code	Description
645-000242	Valve Plate MK3 - 80mm bore
603-000003	Lever
605-000017	Silicone Grease 500g tub

## Sandwich Valve Plate Dimensions

Product code	Type	Length (L)	Width (W)
645-000177	MK1 & MK2 - 70mm Bore	155mm	84mm
645-000242	MK3 - 80mm Bore	210mm	100mm
603-000003	Lever		







# Hy-Ram Engineering

Pipe tool and equipment expertise

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