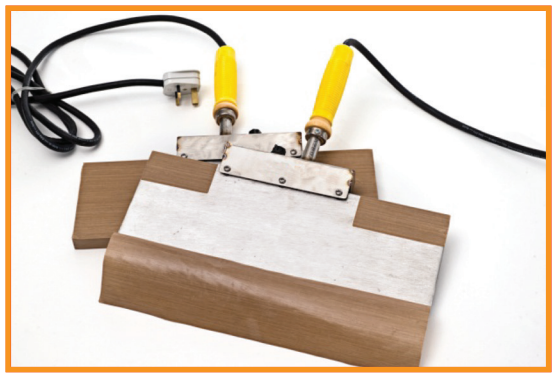
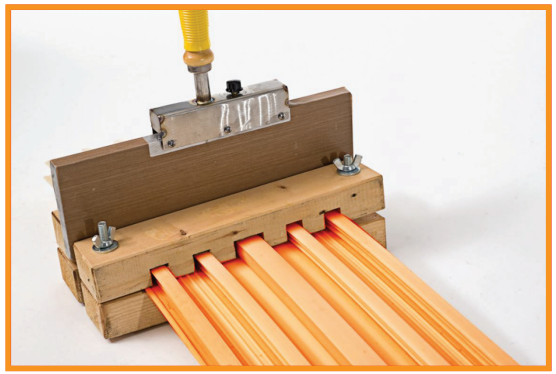
ROCKBOND
MAKING CONCRETE STRONGER

HYDRO-STOP PVC WATERSTOP WELDING EQUIPMENT OPERATIONAL SAFETY MANUAL





OPERATIONAL INFORMATION

Do not operate the Welding Iron unless you read and understand the instructions and warnings in this manual. If any doubt or question arises about the correct or safe method of performing any of the instructions found in this manual contact Rockbond.

Personal Protection

- Always wear protective gear including but not limited to:
- Protective Heat Resistant Gloves, Safety Goggles & Protective Shoes/Boots
- A fully conforming respirator for use in indoor confined spaces
- Ensure all electrical connections are in good working order prior to plugging in the Welding Iron.

Work Site Safety

- Do not leave plugged/unplugged Welding Iron lying around the work area.
- Never use Welding Iron on slippery, wet, or muddy surfaces. The location should be flat, dry, and free from any ignitable objects or materials.
- Welding should be done in a well ventilated area. In confined areas, a respirator should be worn as the fumes from melting PVC Waterstop may be harmful to your health. Refer to Rockbond's MSDS for further information.
- NEVER use the Welding Iron at night unless there is sufficient lighting for use.
- NEVER use the Welding Iron in the rain or leave out in the rain.

Electrical Safety & Standards

- Ensure appropriate electrical connections are in good working order and connections are fully secure.
- Do not alter the Welding Iron in any way. Doing so could be a hazard and also void the warranty.
- Keep Welding Iron away from water and never operate with wet hands.
- Do not use the Welding Iron with a damaged cord.
- Never use the Welding Iron with non-regulated voltages.
- Understand the Safety Manual before plugging in the Welding Iron.
- Always wear Protective Heat Resistant Gloves & Safety Glasses.

Operating Safety

- Allow only trained & qualified personnel to operate the Welding Iron.
- Keep children, bystanders, and animals, at least 10 meters away from the work area.
- Never operate under the influence of alcohol, drugs or medication.
- Always unplug the Welding Iron when not in use.
- Welding Iron operates at a very high temperature and can burn flesh or cause ignition, even after being unplugged (until cool).

NOTE: Never, under any circumstances, alter your Welding Iron. Altering the equipment, or using the equipment in such a way as to change its design capabilities and capacities, could result in serious or fatal injury and WILL VOID THE WARRANTY.

Waterstop Welding Iron Troubleshooting Guide

No Heat

- Have qualified personnel check for correct line voltage.
- If the socket plug has been changed, make certain it meets the correct rating and approval for use and all electrical connections are sound.
- If still no heat return to Rockbond for checking.

Low Heat

- Have qualified personnel check for correct line voltage.
- If using a generator, make sure the power is enough for all tools in use.
- Ensure power extension cord being used is less than 15 meters in length and is at the appropriate amp rating for use.
- If temperature has not been reached in 30 minutes contact Rockbond.

Warranty

Rockbond warrants this Welding Iron to the original user against defective material or workmanship for a period of 60 days from the purchase date.

Hydro-Stop PVC Waterstops
- User Guide For Job Site Welding Procedures

Follow all of the instructions contained in this booklet to ensure a safe procedure and to achieve structurally sound waterstop welds.

Welding Technique

An initial warm up time of approximately 15 minutes is required to heat up the Welding Iron to the required temperature. Preheat Welding Iron up to the following temperature:

- For PVC Waterstop : 185 to 200°C
- For TPV/TPER Waterstop : 210 to 225°C

It is recommended to verify the temperature using an external thermometer.

NOTE: The Peel and Stick Teflon Cover is to remain on the iron during the welding process. DO NOT REMOVE.

CAUTION: Too high of a temperature will result in damage to the Waterstop Weld, Welding Iron Cover, and possibly the Welding Iron.

The information and the recommendations relating to the application and end use of this product are given in good faith and are based on the information provided by the manufacturer of the product and/or the Company's current knowledge and experience in connection with the product when properly stored, handled and applied under normal conditions and no liability of final function at the job site is assumed. In practice, the differences in materials substrates and actual site conditions are such that no warranty in respect of merchantability of or fitness for particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written and/or oral recommendations, or from any other advise offered by the Company. The Company also has no express or implied knowledge of any particular purpose for which the product is required and any such information given will not be taken into account in the supply of this product. No responsibility or liability by the Company will be accepted for misuse, misreading or derivation from recommended guidelines in respect of this product and the user shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith. The information contained in these documents may change at any time without notice. Any use of this product in any application should be approved as suitable for use/application by the Design Engineer and Project Manager.

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Following is the recommended procedure for field splicing Hydro-Stop PVC Waterstops. On-site welding is a relatively simple exercise using Rockbond Heat Welding Equipment comprising of an adjustable Welding Jig and Welding Iron.

1. The number of joins in Hydro-Stop PVC Waterstop shall be the minimum practical. Straight splices can be carried out in the field but all intersections shall be factory produced and supplied by Rockbond.
2. Preheat Welding Iron until the desired welding temperature is achieved, which is approximately 185°C-200°C for PVC & 210°C-225°C for TPER.
3. Place the ends of the Hydro-Stop PVC Waterstop through the adjustable Welding Jig and clamp down using the assembly screws, cut both ends off square with a sharp knife or fine tooth saw. (Refer Fig. 1)
4. Loosen the clamps and slide back Hydro-Stop PVC Waterstop allowing approximately 10-15mm of Waterstop to protrude from both ends, then clamp the Welding Jig down tightly in position with the screws. At this stage when the Welding Jig slides together, the ends should meet squarely and the profiles are to match up. If the Hydro-Stop PVC Waterstop is not square to each other, or the profiles do not meet up, loosen the clamps on the Welding Jig and adjust the Waterstop until the ends meet up perfectly, then tighten up the clamps ready for welding. (Refer Fig. 2)
5. Slide the two halves of the Welding Jig apart and position the pre-heated Welding Iron on top of the bars between the Hydro-Stop PVC Waterstop ends. Slide the two waterstop end sections back together until they press against the sides of the Welding Iron and maintain the pressure in this position until a bead of molten PVC, approximately 4mm-5mm thick, appears along the length of the Iron. The PVC must melt without charring or burning. (Refer Fig. 3)
6. Slide the Welding Jig apart, remove the Welding Iron vertically and then slide the two halves of the profile back together holding under pressure for approximately 45 to 60 seconds, allowing the molten PVC to fuse together. (Refer Fig. 4)
7. Unclamp the Welding Jigs and carefully remove the joined Hydro-Stop PVC Waterstop taking care not to flex the join until it is cool (approximately 5 minutes).

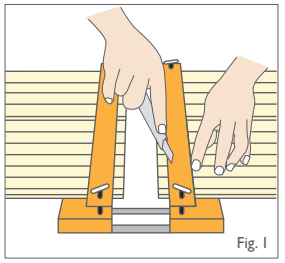
Fig. 1

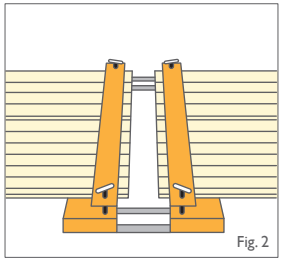
Fig. 2

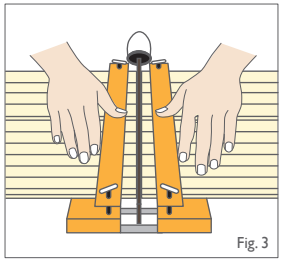
Fig. 3

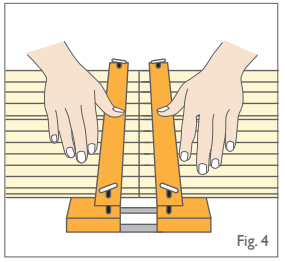
Fig. 4

NOTE: Welding should only be carried out in areas with adequate ventilation, if welding in confined locations, it is considered necessary to provide forced ventilation or a suitable respirator. Care must be taken not to heat the PVC to the point of charring as harmful fumes may be released. Material Safety Data Sheet (MSDS) available upon request.