UNISTOP® HOT JOINT KIT

HOT VULCANISING KIT FOR RUBBER WATERSTOPS



Product Features

UNISTOP® HOT JOINT KIT is a hot vulcanising press for jointing **UNISTOP® NR** rubber waterstops on site. The prepared waterstop ends are wrapped with unvulcanised rubber compound, placed in a heated mould and clamped, so that the compound cures and fuses with the waterstop into a continuous vulcanised rubber joint.

The kit consists of a steel press frame with a hydraulic jack, a heated vulcanising mould shaped to the waterstop profile, and a lockable temperature control box with a digital temperature controller and circuit breaker. It is supplied with rubber compound, rubber solution, rubber cleaner and a wire brush.

The equipment is reusable, so **UNISTOP® HOT JOINT KIT** is the economical choice for large projects with many site joints, where the overall cost per joint is lower than with the **UNISTOP® COLD JOINT KIT**.

Advantages

Fully vulcanised joint, fused with the waterstop rubber
Lower overall cost per joint on projects with many joints
Reusable press, mould and temperature control box
Digital temperature control for consistent joints
Hydraulic jack gives firm, even clamping pressure
Mould shaped to the UNISTOP® NR waterstop profile
Use with factory-moulded L, T and X intersections

Fields Of Application

Site Butt Joints of Rubber Waterstops	Basement & Underground Car Parks
Large Projects with Many Joints	Tunnels & Subways
Joints to Factory-Moulded Intersections	Retaining Walls
Water Tanks & Reservoirs	Dams & Spillways
Water & Sewerage Treatment Plants	Culverts & Drainage Structures

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UNITY RELIANCE

UNISTOP® HOT JOINT KIT

Kit Contents

Item	Description	Quantity
Vulcanising Press	Steel frame with hydraulic jack and heated mould	1 unit
Temperature Control Box	Digital temperature controller, circuit breaker	1 unit
Rubber Compound	Unvulcanised rubber for the joint	5 kg
Rubber Solution	Bonding solution for prepared surfaces	1 litre
Rubber Cleaner	Solvent-based cleaner for rubber surfaces	1 tin
Wire Brush	For roughening the waterstop surface	1 pc

The vulcanising mould is made to suit the UNISTOP® NR waterstop profile and width. State the profile and width when ordering. Additional rubber compound and rubber solution are available separately.

Physical Properties

Suitable For	:	UNISTOP® NR rubber waterstops (DB and CB profiles)
Jointing Method	:	Hot vulcanising in a heated, clamped mould
Mould Temperature	:	130 °C – 150 °C
Preheating Time	:	Approx. 30 minutes
Vulcanising Time	:	Approx. 25 – 30 minutes per joint
Cooling Time	:	Approx. 20 minutes before inspection
Power Supply	:	220 V single-phase, 50/60 Hz
Power Rating	:	1.5 – 3.0 kW (top and bottom heating plates)
Clamping	:	Hydraulic bottle jack

Hot or Cold Joint Kit?

UNISTOP® HOT JOINT KIT – large projects with many site joints. The press is reusable, so the overall cost per joint is lower. Needs mains power on site.

UNISTOP® COLD JOINT KIT – projects with only a few joints, repairs, and confined or remote areas without power. No heating equipment required.

Health & Safety

The mould and press reach 130 °C – 150 °C. Do not touch the heated surfaces, and wear heat-resistant gloves when handling the mould and the hot joint. Allow the equipment to cool before moving or storing it.

Connect the control box to a properly earthed power supply, keep cables and the control box dry, and switch off and unplug before cleaning. The rubber cleaner and rubber solution are solvent based and flammable: use them in a well-ventilated area away from naked flames. Refer to their MSDS.

This technical data sheet is given in good faith and does not guarantee the application work. All Unity Reliance technical data sheets & method statements are updated on a regular basis and can be subject to change without notice. It is the user's responsibility to obtain the latest version of the information required.

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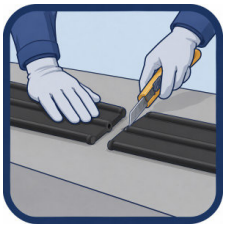
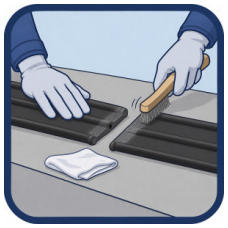
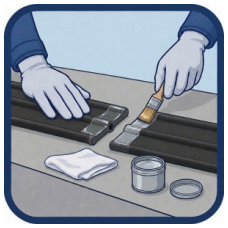
UNISTOP® HOT JOINT KIT

Installation Procedures

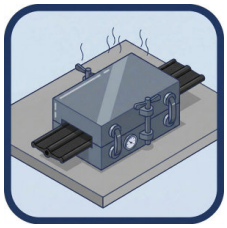
1 Preparation | 2 Cleaning | 3 Compound | 4 Vulcanising


Cut ends square


Wire-brush 75 mm


Clean & apply solution


Apply rubber compound


Vulcanise in mould

Installation Procedures

Step 1
PREPARATION

Switch on the temperature control box and preheat the vulcanising mould for approximately 30 minutes, until it reaches 130 °C – 150 °C.

Cut both ends of the rubber waterstop to be joined square and as straight as possible using a sharp knife. Clean water may be used as a lubricant.

Wire-brush the ends and surfaces of the rubber waterstop within 75 mm of the joint until a suede-like finish is achieved.

Step 2
CLEANING

Wipe the prepared areas with a clean cloth, then clean the waterstop ends and prepared surfaces with rubber cleaner applied with a brush.

Once the rubber cleaner has dried, apply **rubber solution** to the waterstop ends and prepared surfaces. Allow it to dry for approximately 5 minutes.

Step 3
COMPOUND

Cut the **rubber compound** into two pieces, each 50 mm wide and equal in length to the width of the waterstop. Place one piece at each end of the joint and press firmly into position.

Cut small pieces of rubber compound to approximately the size of the outer dumbbell section and press them firmly into position on the waterstop profile.

Cut a 75 mm wide piece of rubber compound long enough to wrap around the waterstop. Centre it over the joint and wrap it fully around the waterstop, keeping the profiles aligned.

Step 4
VULCANISING

Place the joint on the bottom half of the heated mould, close the upper half and pump the hydraulic jack until the mould is clamped firmly. Re-tighten the jack after the first few minutes as the compound softens.

Vulcanise for approximately 25 – 30 minutes. Release the jack, remove the waterstop and allow the joint to cool for approximately 20 minutes.

Inspect the joint for full bonding, with no voids, cracks, misalignment or unfused compound, before installation. Remake any defective joint.

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