Kube I Water Softener

Installation Instructions

WRAS APPROVED PRODUCT

Thank you for choosing a **Kube I** Water Softener to improve the quality of your water.

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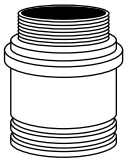
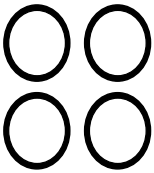
Contents of box

Please ensure you have all of the following items before proceeding with an installation.

1 x Water softener



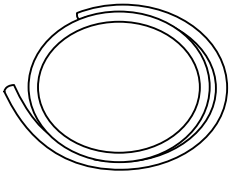
2 x 3/4” BSP in/out adaptor



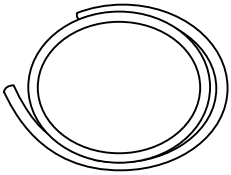
4 x O-ring

1 x In/out retaining bracket

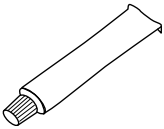
1 x Bracket retaining pin



1 x 2m of 5/8” overflow tubing



1 x 2m of 1/2” drain tubing



1 x 2cc silicone tube

Safety information

Read all information carefully before installing and using the softener. Check WRAS Information and Guidance Note, no. 9-07-01 for regulatory advice.

- We recommends that a qualified installer or engineer performs the installation. Failure to install the system as instructed could invalidate the warranty.
- Do not install if the supply water pressure exceeds 6 bar (125 psi), unless a suitable pressure reducing valve has been installed on the water supply to the softener and set to 6 bar.
- Do not install the water softener in an area where the temperature can cause the unit to freeze. Freezing temperatures will damage the system.

VERY IMPORTANT:

Where a cabinet overflow could cause damage, you must install the 5/8" O.D overflow tubing to the barbed fitting on the cabinet and run to a suitable outlet that is visible and capable of taking the overflow (ie. through the outside wall). Make sure the outlet is not higher than the barbed fitting.

- When installing a plastic component on a copper pipe in line, earth continuity straps must be placed ACROSS the component being fitted to ensure that the earth continuity is never broken.
- A Kube installation kit includes a by-pass assembly which conforms to BS14743 and enables the softener to be isolated from the water service lines for maintenance and service. This also maintains the water supply when the system is disconnected.
- These systems are not intended to be used for treating water that is microbiologically unsafe or water that has an unknown quality without adequate disinfection before or after the system.

IMPORTANT:

Refer to the plumbing schematic in Figure 1 before beginning installation.

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WRAS approval for the Kube I applies to cold water (max 23˚C) installs only.

Specifications

Kube I Water Softener

Hardness Level mg/L	100	125	150	200	250	350	525
Litres between regenerations	1,358	1,083	905	689	531	394	256

Maximum Hardness	525 mg/L
Cabinet Dimensions @ base	H 492mm x D 425mm x W 235mm
Salt used per regeneration	0.27kg
Water used per regeneration	25 litres
Regeneration Time	12 minutes
Flow Rate @ 1 bar pessure drop	30 litres per minute
Flow Rate @ 2 bar pessure drop	40 litres per minute
Pipe connections - in/out	3/4" BSP male
Drain	Drain Kit and hose suitable for 32mm & 40mm. Waste Pipe supplied.
Overflow	5/8" OD Barb - Hose supplied
Minimum/Maximum Operating Temperature	2° - 23°C
Minimum pressure	1.5 bar (dynamic)
Maximum pressure	8 bar*

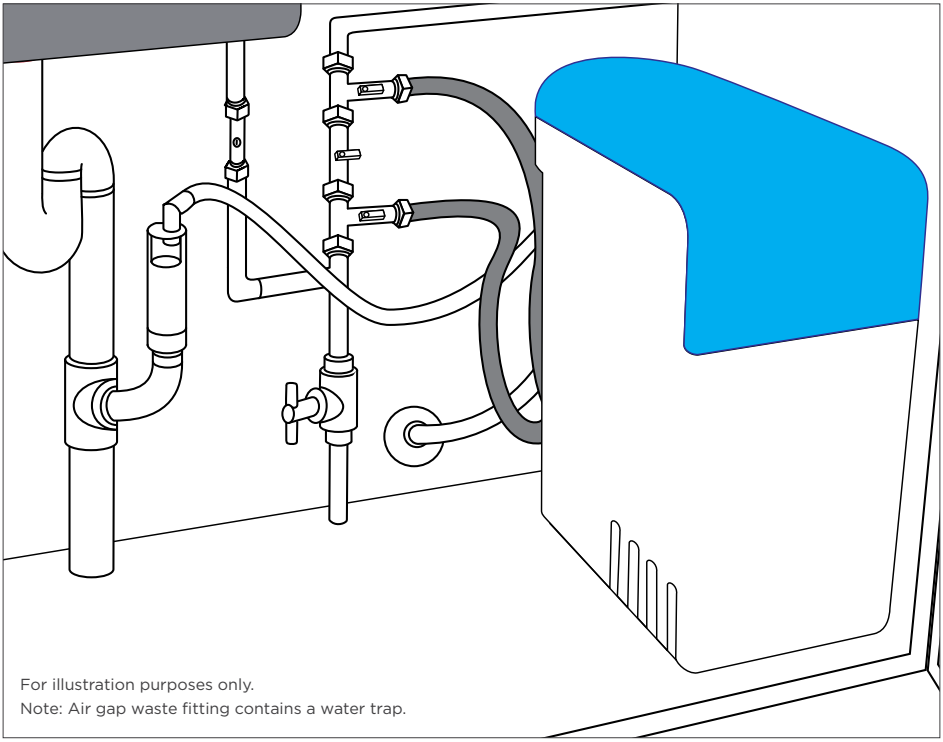
*Recommend PRV fitted if above 6 bar.

Typical installation

Your installation may vary.

1. A non-return valve (included in the by-pass set) is required on the mains water supply to the softener.
2. Fit a pressure regulating valve, where water supply pressure exceeds 6 bar on the mains water supply to the softener.
3. Plumb a drain line from the softener to a waste pipe through an appropriate air gap compliant with water regulations.
4. Consult WRAS Information and Guidance Note, no. 9-07-01 for regulatory advice.

FIGURE 1:



For illustration purposes only.
Note: Air gap waste fitting contains a water trap.

Installation instructions

1 Locate:

Determine location to install equipment. Make sure that the unit will be on a flat surface. If the unit is sited in a warm environment or next to a heat-generating appliance, you may experience salt build up on the inside of the cabinet. This may need to be periodically cleaned. Alternatively, site the unit in cooler, ventilated position.

2 Test pressure:

Test incoming pressure to the unit. A pressure reducing valve is recommended if the pressure is above 6 bar.

3 Install:

Plumb pipe work as necessary to accommodate a by-pass valve set, see **Figure 1**.

CAUTION:

Do not solder any fittings whilst connected to the unit adaptors. Excessive heat may result in damage to the plastic and rubber parts. The materials used in the soldering process may attack certain types of plastics. Care should be taken during the installation process to ensure that solder and flux do not come in contact with media tank, control module and related plastic components.

NOTE:

Verify installation complies with regulations before continuing.

4 Flush:

After all the plumbing has been completed, but before connecting the water softener, flush the pipe work allowing water to rinse out any residual debris.

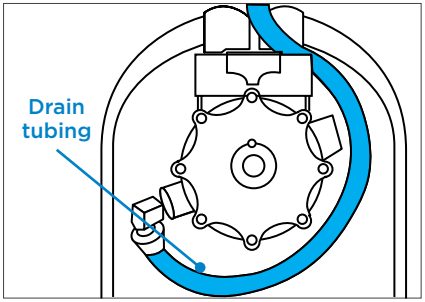
5 Attach drain and overflow tubing:

Insert 1/2" tubing into the drain elbow, routing the tubing around the control valve exiting the softener in the aperture below the in/out connectors, see **Figure 2**.
Make sure the tubing is inserted 18mm into fitting as shown in **Figure 3**.
Run the drain line to the discharge point then attach 5/8" overflow tubing to barbed overflow connection at rear of cabinet and route to overflow outlet.

NOTE:

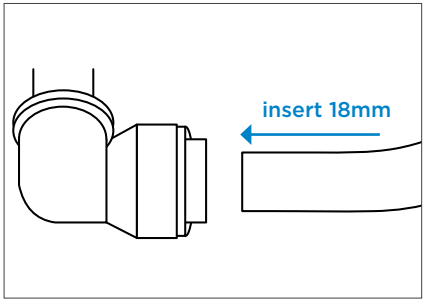
The drain tubing should be run no more than 2 metres vertically and 9 metres horizontally, before connecting to the main drain. Make sure there are no obstructions or kinks in drain tubing before connecting to softener.

FIGURE 2:



Colour of tubing for illustration purposes only.

FIGURE 3:



6 Set regeneration frequency:

See **Figure 4** for top view of softener valve. Determine the supply water hardness value in ppm or mg/L by using a test kit or by contacting your water supplier. Put a cross headed screw driver into the recess on the top of the unit and whilst keeping the screw driver pushed down, turn at least one full rotation to reset the metering system.

Locate value on the meter disc, push down and turn the hardness adjustment knob so that the hardness value is positioned opposite the alignment arrow. If the dial does not move repeat the resetting process.

7 Fit the adapters:

Fit 2 O-rings to each in/out adaptor then lubricate with supplied silicone grease. Connect the inlet/outlet adapters to the supply and return hoses remembering to use screened washers. Install adapters into control valve in/out ports, ensuring that they are fitted into the correct ports (see flow arrows on valve for reference). Attach the retaining bracket and pin to the control valve.

Installation review and startup

1 Test pressure:

Test incoming pressure to the unit and adjust pressure reducing valve if the pressure is still above 6 bar.

2 Secure drain line:

Make sure the drain line is secure, using an airgap that is compliant.

3 Main inlet valve:

With the by-pass in position (inlet closed, outlet closed, by-pass open), open the main inlet valve slowly and check for leaks in the plumbing.

4 Finish system set up:

If cabinet does not fill up with water, add 6 litres of water to the Kube I cabinet. Add a quality grade of block or tablet salt.

5 Start a manual regeneration:

Using a #2 Phillips screwdriver, push down firmly on the actuator and slowly turn clockwise, listening for four clicks to start the regeneration. At this point you should hear water begin to run through the system. If you do not hear water running through the system, the disc may not have been advanced far enough, continue to turn.

After 12 minutes the regeneration will be complete and the softener is ready for service.

6 Salt Options:

You have the option of using block or tablet salt.

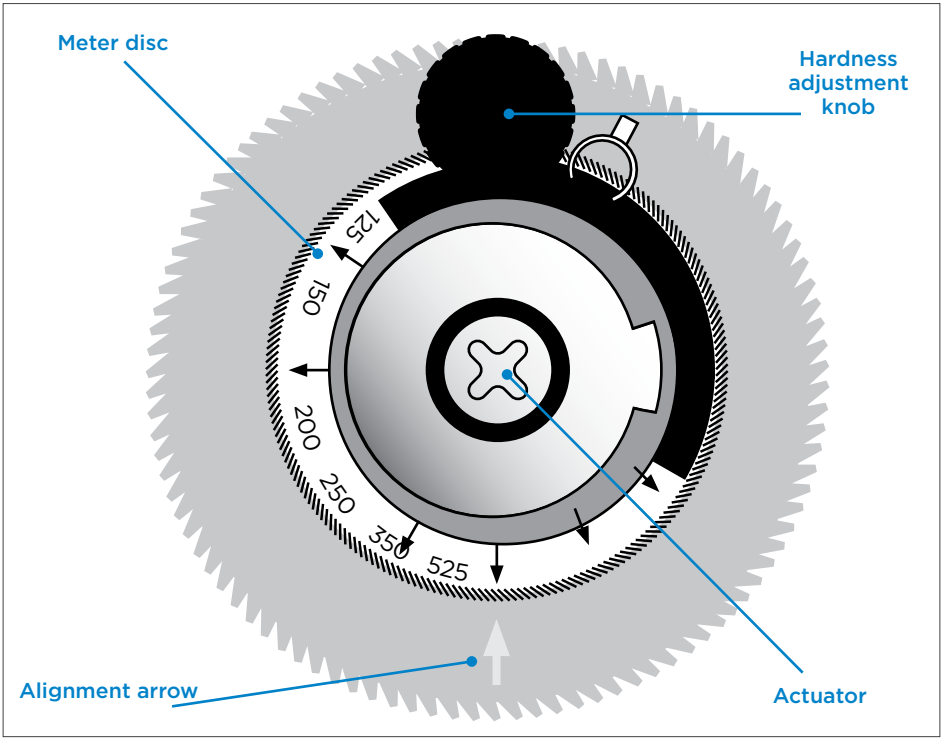
IMPORTANT:

On no account should granular salt be used in this Kube Water Softener

7 Leave in service:

Open outlet valve and close bypass.

FIGURE 4:


Meter disc
Hardness adjustment knob
125
150
200
250
350
525
Alignment arrow
Actuator

Part No: Kube 17139

2479_0820

Kube I Water Softener

15mm Installation Kit Instructions

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Thank you for choosing a **Kube I** Water Softener to improve the quality of your water.

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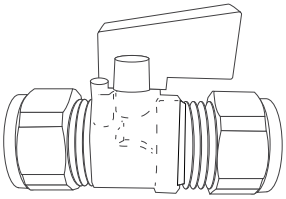
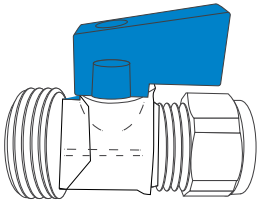
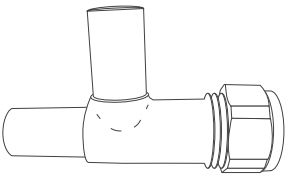
By-pass kit: Contents



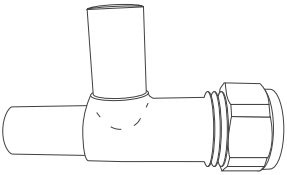
1 x Bypass valve



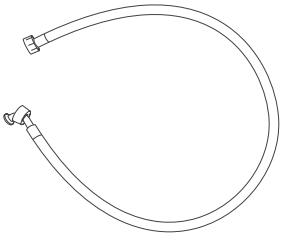
2 x Inlet/outlet valve



1 x Outlet T



1 x Inlet T with non-return valve
(labelled with flow direction)



2 x Hoses (15 mm or 22 mm)

4 x Sealing Washers

PLEASE NOTE:

A 22mm version is available at additional costs. Please call 01489 566970 for more information.

By-pass kit: Considerations

The by-pass valve set can be assemble in various configurations to accommodate change of copper pipe direction.

The inlet “T” is clearly labelled with a “direction of flow arrow”, if the T’s are assembled incorrectly water will not flow to the property.

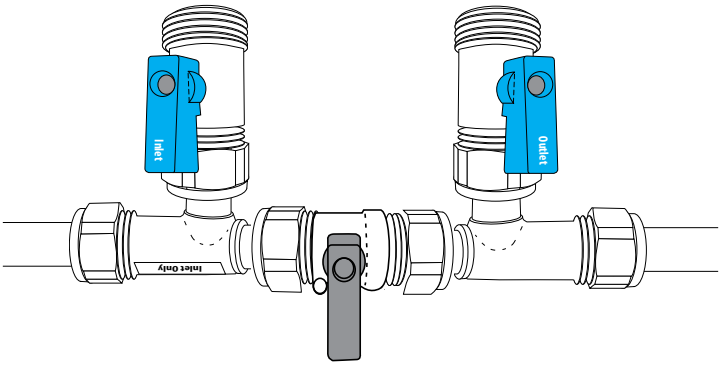
NOTE: Supplied compression olives are a mix of brass and copper, they are in the correct joints and should not be relocated. Brass olives are for joints on copper pipe, copper olives are for hard tails in the T assemblies.

When in the correct orientation make good the compression joints.

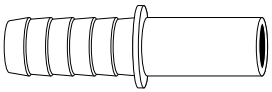
When measuring the length of copper pipe work to cut out, take into account that the length of pipe inserted into the T’s is different as the inlet T allows for the inbuilt non-return valve.

On completion, affix the “By-pass Softener” label in a prominent location.

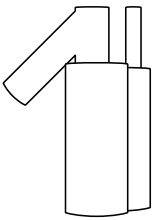
By-pass kit: Installation



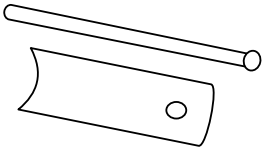
Gap trap kit: Contents



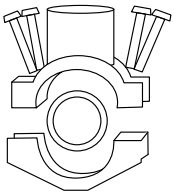
1 x Drain hose to air gap connector



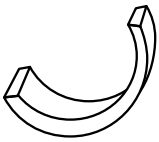
1 x Air gap



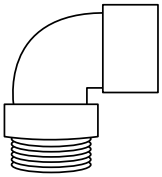
1 x Outlet T



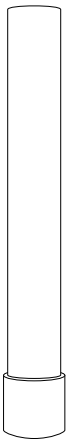
1 x Saddle



2 x Spacers



4 x Elbow



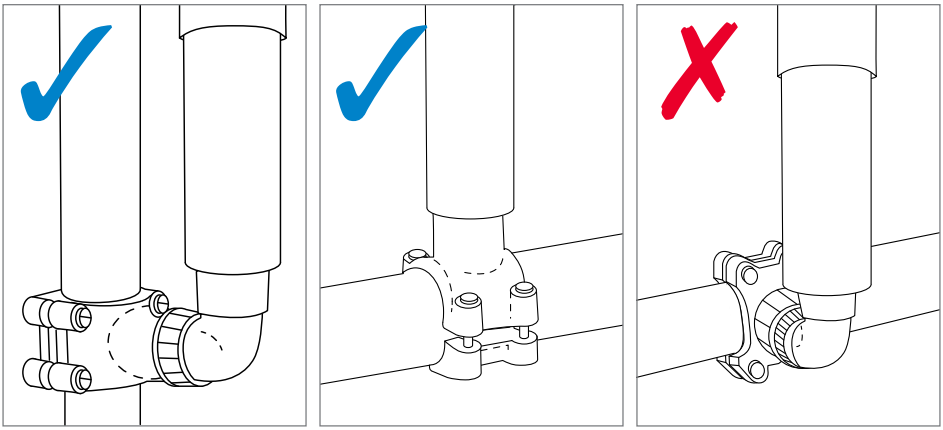
1 x Extension piece

1 x Gap trap

Gap trap kit: Considerations

Before starting consider the following;

- You will require a tin of solvent weld cement
- The extension piece can be cut to suit the installation, but should be no less than 100mm in length
- The elbow should only be used on a vertical waste pipe, since use on a horizontal pipe will cause subsequent restriction due to the build up of fat/grease. If fitting to a horizontal pipe, fit on top without the elbow.



Gap trap kit: Instructions

1 Assemble the saddle with the O ring:

Use spacers if the pipe is 1 $^{1}/_{4}$", assemble the saddle with the O ring and clamp to the waste pipe.

2 Bore the hole:

Using the cutter, bore the hole and make sure that slug is fully cut off - put your finger in to check.

3 Fit the gap trap:

Fit the gap trap hand tight on to the O ring with the elbow in between, if required. At this point dry assemble the extension and air gap to check that you have sufficient space. If you need to cut the extension do so now but leave as long as possible (minimum 100mm).

4 Assemble the airgap:

Determine which way you need the spigot on the air gap to meet your drain hose and assemble all with solvent weld.

5 Connect the drain hose:

Once the solvent is dry, connect the drain hose - this can be done before gluing if it is easier.

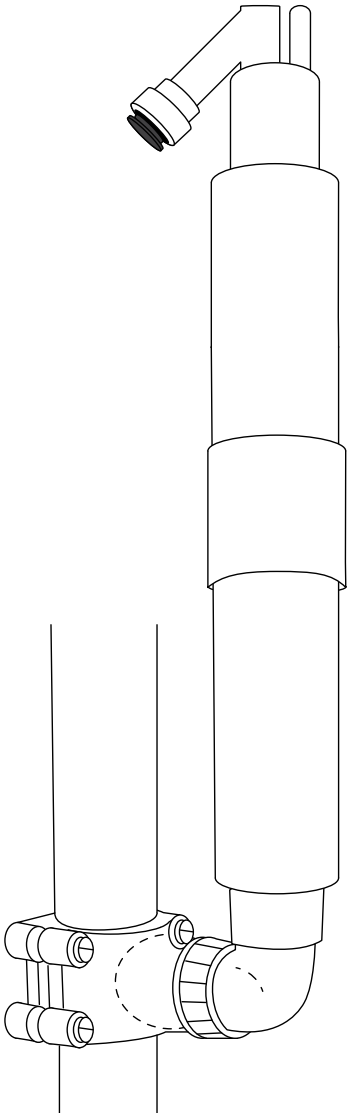
6 Installation checks:

Check for leaks and if you have used the elbow make sure that there is no danger of the standpipe being pushed out of vertical alignment.

7 Connect drain hose to gap trap:

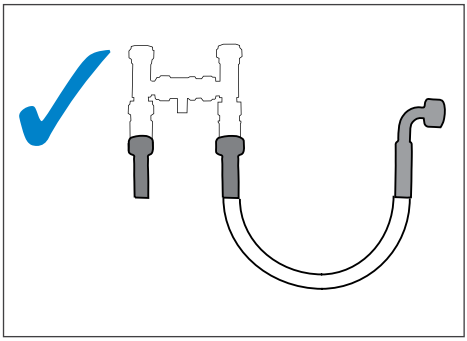
To make the final connection of the drain hose into the gap trap, insert 3/8" barb fitting into the hose and connect to the gap trap via the push-fit fitting.

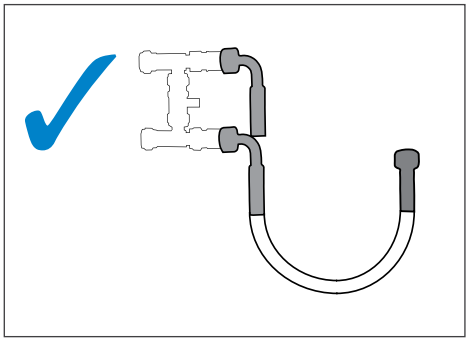
Gap trap kit: Installation

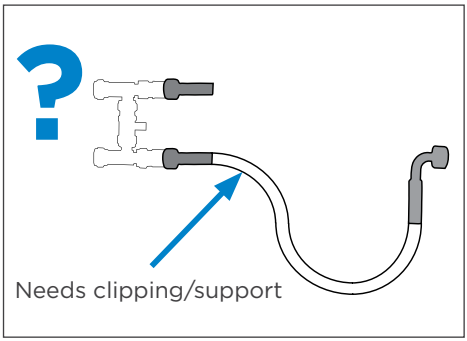


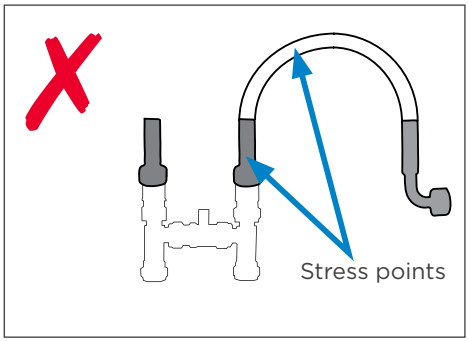
Supply & return hose orientation

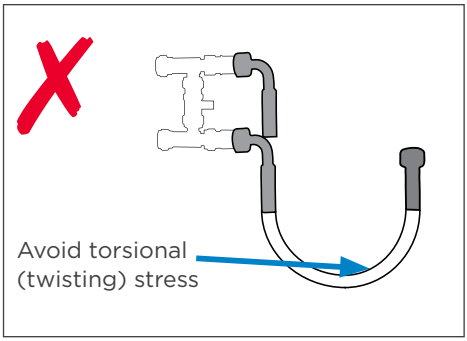
When fitting hoses in their final position, consideration should be given to any stresses imparted on connections.

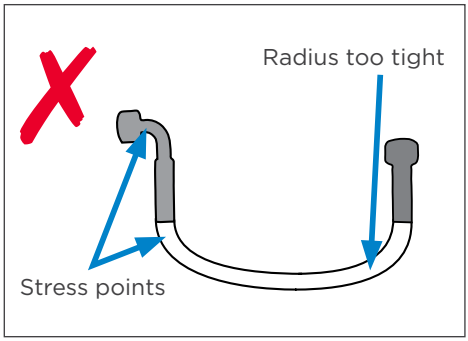












Part No: Kube 17139

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