MARLEY EXPANSION JOINER INSTRUCTIONS

This example shows Typhoon® spouting but the installation technique is representative for all Marley spouting profiles.

Classic™ Expansion Joiner (MC17)

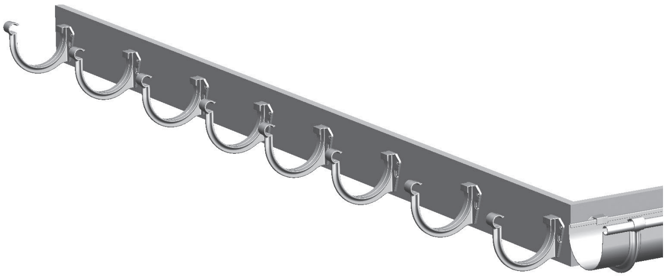
Stormcloud® Expansion Joiner (MS17)

FL2® Expansion Joiner (FL17)

Typhoon® Expansion Joiner (MT17)

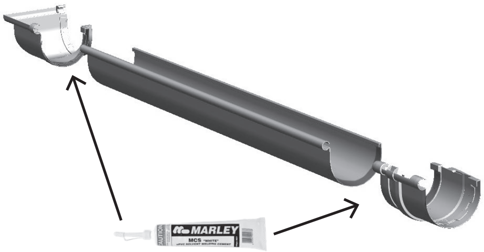
Magnum® Expansion Joiner (MAG17)

1



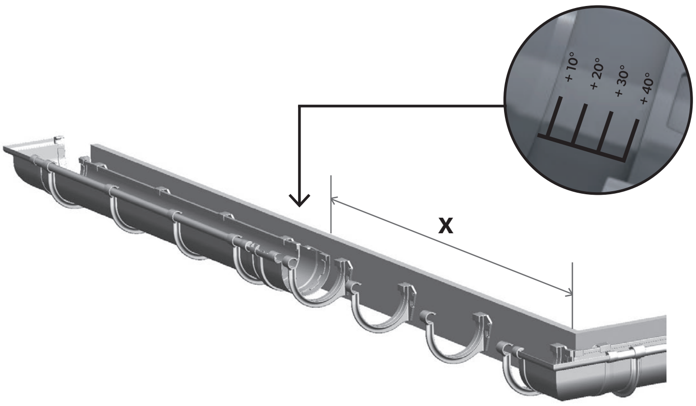
1. Using 3 screws, including 2 in the top holes, fix the brackets to the fascia with correct spacing. Ensure the spouting falls from the high point to the low point i.e. the outlet. Recommended fall is 0.5mm per metre.

2



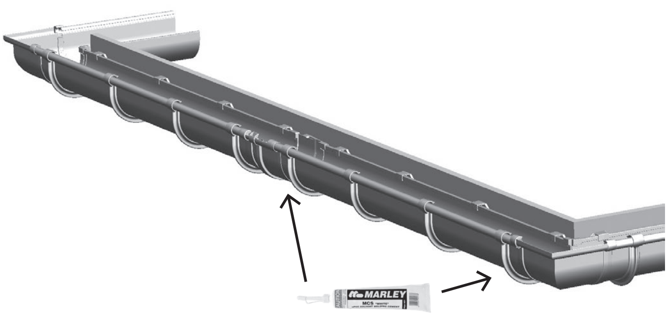
2. At ground level solvent weld the corner and one side of the expansion joiner onto the respective ends of the spouting length. Let this assembly set for at least 10 minutes. Note only Marley MCS Solvent Cement is to be used for installing Marley Rainwater systems.

3



3. Once the solvent is set, insert the length of welded spouting into the brackets. Adjust the expansion joiner to the corresponding temperature mark at the time of install (as per inset photo). Once the length is in place, then measure the next spouting length "**X**" required between the expansion joiner and the next corner.

4



4. Cut the required remaining length of spouting using a fine tooth saw or drop saw. Position the remaining length of spouting onto the brackets. Solvent weld this length to the other side of the expansion joiner and next corner.

The run is complete.

Maintenance

Expansion joiners feature a rubber seal to create water tightness between the two sliding parts of the fitting. Over time the rubber seal may lose its sliding capability. This can be resolved by unclipping the joiner, removing and cleaning the seal and the groove it sits in, then lubricating it with a silicone based lubricant before reassembling.

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0800 MARLEY (0800 627539)

MANAGING THERMAL MOVEMENT

Many building materials will expand or contract with changes in temperature. It is especially critical for spouting systems as they are constantly exposed to the daily and seasonal temperature cycles which can affect long term performance. ‘Uncontrolled’ thermal movement can cause spouting creep or place stress on joints, both of which can result in unwanted leaks over time.

Marley uPVC systems expand and contract at a linear thermal expansion coefficient of 0.7mm /m /10°C. Marley spouting systems allow for the thermal expansion of uPVC using expansion outlets and expansion joiners, creating relief points for expansion during the install.

Expansion outlets are recommended on all runs over 4 metres (instead of basic downpipe dropper outlets) then once the run exceeds 12 metres an expansion joiner should also be included to further accommodate thermal movement.

Temperature change = 25°C - 15°C = 10°C Length of run = 8 metres
Thermal movement = 0.7mm per metre per 10°C change so = 0.7mm x 8 x 1 = 5.6mm

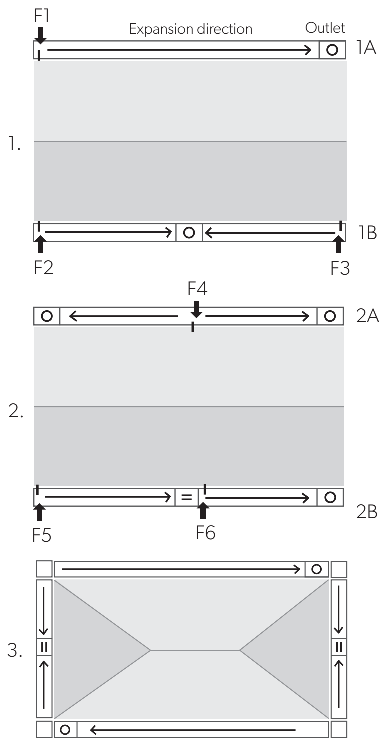
E.g. The spouting is installed at 15°C and the temperature then increases to 25°C. On a 8 metre run there will be 5.6mm of expansion on average.

Controlling the direction of Thermal Expansion/Contraction

To address thermal expansion, consider each run of spouting separately. Through continued expansion and contraction over a period of time, certain spouting runs which lead from an expansion outlet, may gradually creep in one direction. This may cause it to drop out of the expansion outlet or move too far into the expansion outlet. This can be prevented by screwing the spouting onto the fascia as indicated in the diagrams below.

Fixing spouting to the fascia

These diagrams illustrate where the spouting should be screwed to the fascia to control the direction of expansion, for a number of common scenarios.



1A. For an expansion outlet positioned at one end of a spouting run, the expansion will be directed from the stopend to the expansion outlet. Fix at location **F1**.
Maximum run length: 12m

1B. For an expansion outlet positioned in the middle of a spouting run, the expansion will be directed from the stopend to the expansion outlet. Fix at locations **F2** and **F3**.
Maximum run length: 24m

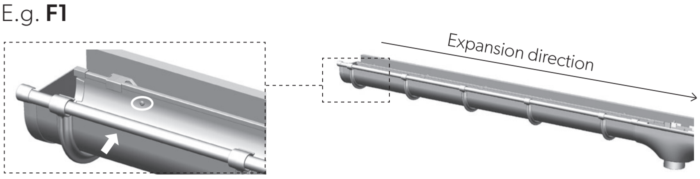
2A. For a long run of spouting with an expansion outlet at each end of the run, fix the spouting in the middle of the run to direct the expansion towards each outlet. Fix at location **F4**.
Maximum run length: 24m

2B. For a long run of spouting exceeding 12 metres with an expansion outlet at one end, an expansion joiner is also required. The spouting will require fixing on the expansion outlet side of the expansion joiner and at the end of the run. Fix at locations **F5** and **F6**.

3. For a spouting run exceeding 4 metres between corners without an expansion outlet, an expansion joiner is required. In this instance, the spouting will not require screwing onto the fascia.

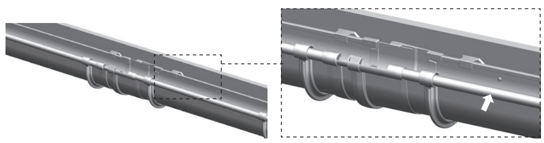
Key: [O] Outlet
[=] Expansion Joiner

E.g. **F1**



Screw spouting opposite end to expansion outlet

E.g. **F6**



Screw spouting adjacent to expansion joiner

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