

THE BIG *easy*

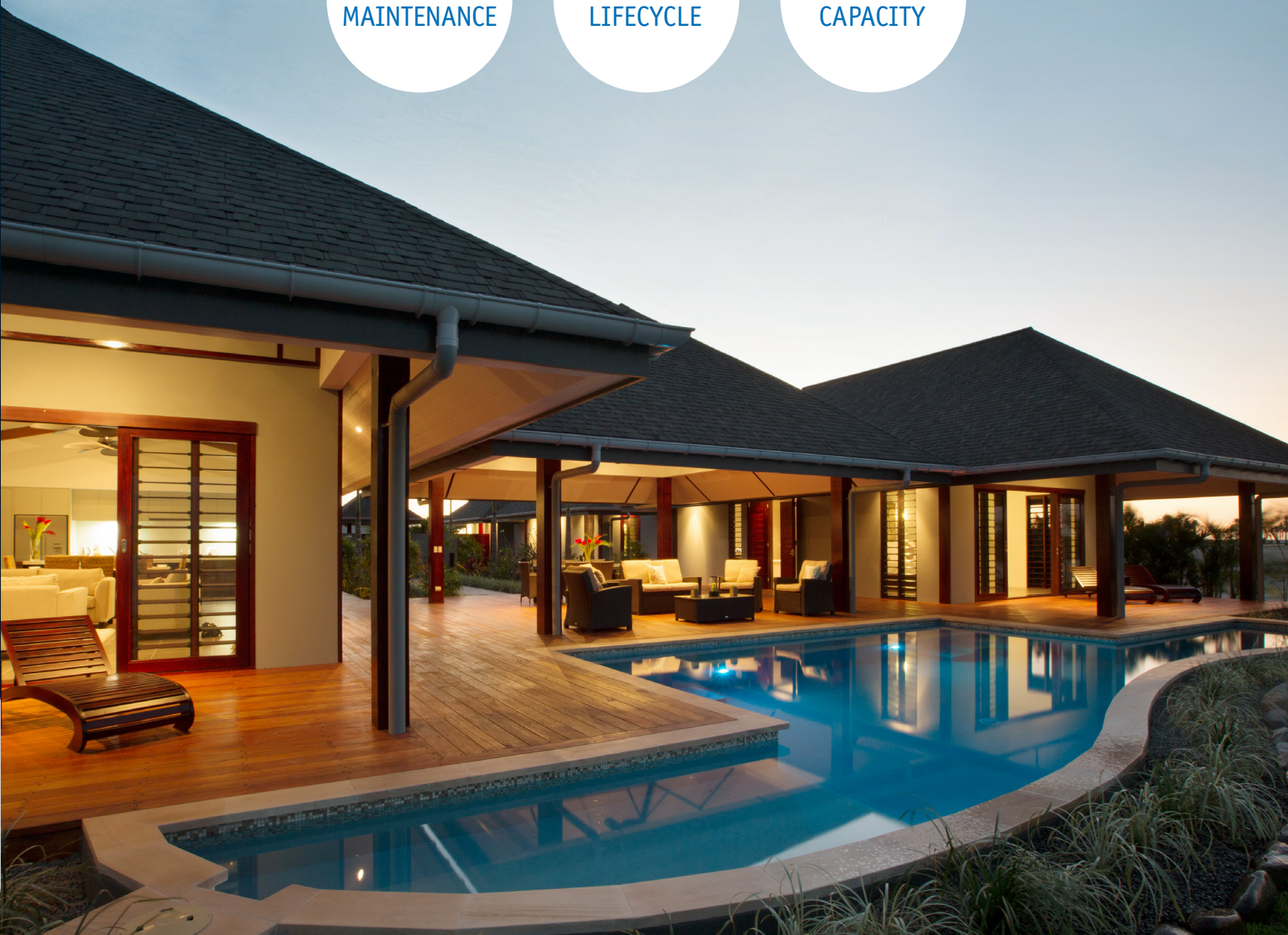
Marley Magnum®

Commercial uPVC Spouting and Downpipe System

LOW
MAINTENANCE

LONG
LIFECYCLE

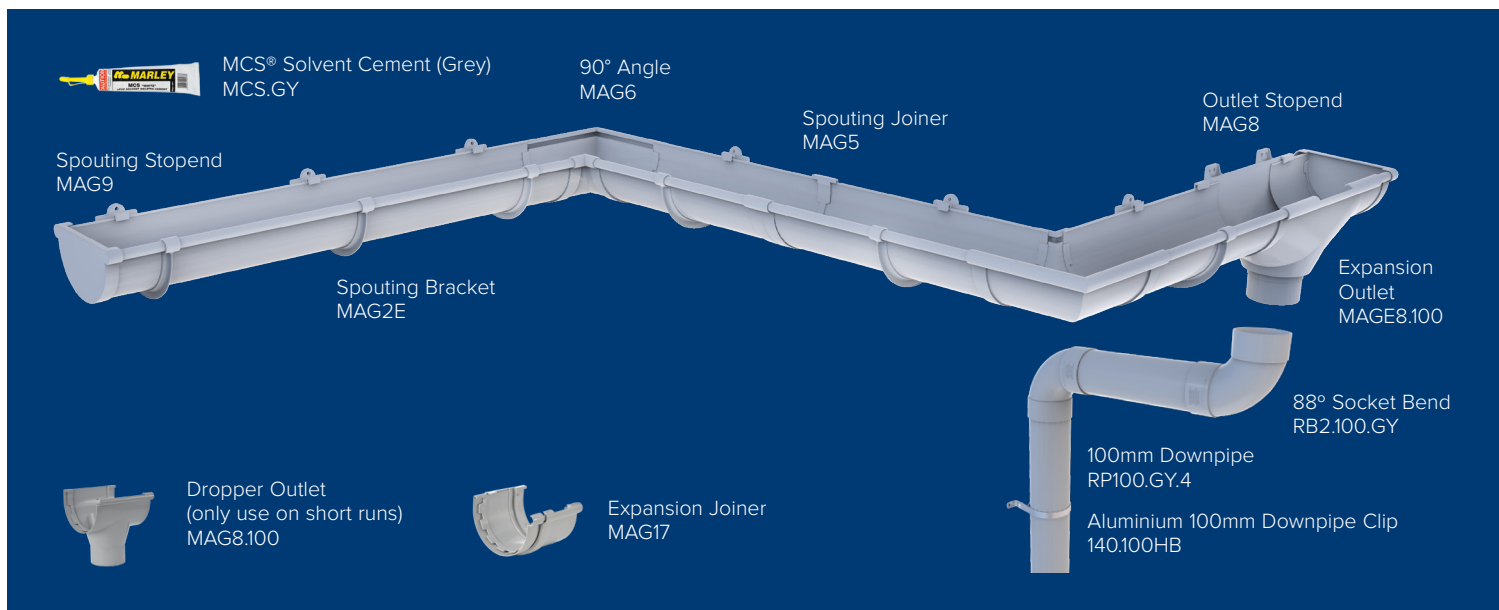
LARGE
CAPACITY



The Marley Magnum® system features a rugged half-round uPVC spouting and 100mm downpipe system ideally suited for large roof areas in commercial, agricultural and even large residential homes.



COMPONENTS



TECHNICAL

SPOUTING

Effective Cross Sectional Area: 14,300mm²

Flow Capacity: 250 litres/minute

Material: uPVC (Unplasticised PVC)

Minimum Recommended Fall: 1:667
i.e. 15mm per 10m of spouting

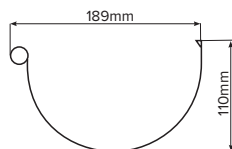
Bracket System: External brackets

Bracket Load Resistance: Class H (Heavy Duty to EN1462)

Warranty: 15 years

Certified for use with potable water (AS/NZS 4020)

Environmental certification: ISO 14001



Spouting Capacity:

Rainfall Intensity* (mm/hr)	40	50	60	70	80	90
Maximum Catchment Area per downpipe (m ²)	375	300	250	214	188	167

Rainfall Intensity* (mm/hr)	100	110	120	130	140	150
Maximum Catchment Area per downpipe (m ²)	150	136	125	115	107	100

* As per NZBC E1 – Surface Water, Rainfall Intensity equates to a 1 in 10 year storm and varies depending on geographic location. For example, 100mm/hr is a general rule of thumb for the Auckland region however please refer to hirsds.niwa.co.nz for current rainfall intensity specific to your location.

DOWNPIPE

Diameter: 110mm

Material: uPVC (Unplasticised PVC)

Maximum bracket spacing:

2m - vertical pipes

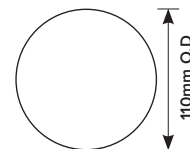
1.2m - graded pipes

Bracket System: Flush bracket system

Warranty: 15 years

Certified for use with potable water (AS/NZS 4020)

Environmental certification: ISO 14001, BEP certification



Maximum Roof Area per downpipe*:

Roof Pitch	Maximum Roof Area served per downpipe (m ²)
0° – 25°	150
25° – 35°	125
35° – 45°	100
45° – 55°	80

* Based on average rainfall intensity of 100mm/hr



INSTALLATION

ESTABLISH THE LOCATION OF DOWNPIPES AND OUTLETS

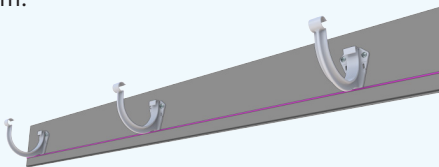
Where possible, position the outlet in the middle of each run of spouting to gain maximum efficiency (ensuring they are clear of access ways and windows) so the maximum length of spouting to an outlet is 12 metres. The outlet should be positioned at the lowest point of fall.

CALCULATE SPOUTING FALL

Marley Magnum should be installed with 1.5mm fall per metre (or 15mm per 10m of spouting). Fix the end bracket first as high as practical and run a stringline from the base of the bracket to the outlet to ensure an even fall.

FIXING BRACKETS

Install brackets at 500mm intervals. In high wind and snow laden areas reduce the bracket spacing to 300mm.



Position the first bracket as high as practical under the roof to ensure that the water will fall into the spouting. Fix the brackets with No10 plated or Stainless Steel round head hold fast screws (30mm minimum length) into the fascia or rafter end.

Ensure the brackets are correctly aligned to allow the gutter to freely slide in the support brackets.

DOWNPIPES

Fit Downpipe brackets at 2 metre spacings for vertical pipes and 1.2 metres for graded pipes.



EXPANSION ALLOWANCE

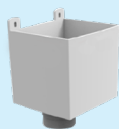
For longer runs, expansion allowance is required to accommodate thermal movement. Expansion can be allowed for by either installing a downpipe Expansion Outlet (MAGE8.100) or an Expansion Joiner (MAG17). On runs exceeding 12m both may be required.

If the number or location of downpipes and therefore Magnum Expansion Outlets is restricted (i.e. are not every 12 metres) an Expansion Joiner needs to be installed.

The Expansion Joiner has a sliding rubber seal (gasket) which accommodates the movement of the spouting. The rubber gasket inside the MAG17 can be removed for cleaning by unsnapping the front retaining lug of the moulded unit. Lubricate the gasket with silicon grease after cleaning before reassembling.

ALSO AVAILABLE 100MM RAINHEAD

(MAGR100) for use with flat roofs or internal gutters only.



EXPANSION JOINER

To install a Magnum Expansion Joiner set bracket spacing at 400mm, the Expansion Joiner is to be installed mid distance between these brackets.



Solvent Cement the Magnum Spouting into one side of the Expansion Joiner (refer to the Marley Solvent Cement procedure below) and insert into previously installed brackets. Set the expansion joiner using the graduated settings marked on the inside of the base of the fitting according to the temperature at the time of the installation, using the “key to temperature graduation” table set out below. It is important that the fitting is set in the right position for it to function correctly.

TEMPERATURE GRADUATION

Key to temperature graduation

Hot: When the temperature of the day is considered to be 10° C above the average temperature.

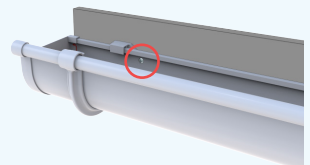
Average: When the temperature is average; In New Zealand the average temperature condition is considered to be 16 – 18° C.

Cold: When the temperature of the day is considered to be 10°C below the average temperature conditions.

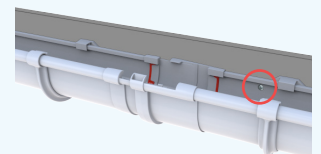
Determine the length of the next piece of spouting. Solvent Cement this length of spouting into the other side of the Expansion Joiner, ensuring the joiner is still set at the correct temperature position.

PREVENT SPOUTING CREEP

To control the direction of thermal movement screw through the back face of the spouting at the opposite end to the expansion outlet.



When expansion outlet and expansion joiner are used on the same run, also screw adjacent to the expansion joiner.



CUTTING

Use a square to mark across the top of the gutter and an A4 sheet of paper to mark around the spouting before using a fine tooth hacksaw to cut the spouting. Remove the burrs from the cut edge before solvent welding into position.

SOLVENT WELDING

Only Marley MCS® Solvent Cement in grey (MCS.GY) should be used when installing Marley Magnum Spouting. The surface areas to be joined must be clean, dry and free from burrs. The solvent cement must be evenly applied to both surfaces. Once the joint has been completed, unnecessary movement should be avoided for 10 minutes. Any surplus solvent on the exterior surface should be removed immediately with a clean, lint free cloth.



ONE SIZE FITS ALL

Magnum's large half-round profile and 100mm round downpipe gives it both excellent capacity and flow allowing it to be used on a variety of projects. From farm utility buildings to warehouses, sports stadiums, educational facilities, multi-story dwellings, large domestic dwellings, correctional facilities, retirement villages and motels. Specifying Marley Magnum® really is 'one size fits all'.



MARLEY GUARANTEE

Marley New Zealand Limited guarantees the purchaser of Marley spouting or downpipe products against defects in material and manufacture for a period of 15 years from the original date of purchase.



LOW MAINTENANCE

Often used on commercial buildings, its especially important that the spouting and downpipe system is low maintenance to reduce on-going costs. Magnum's durability ensures little maintenance is required and the external bracket system gives unobstructed access when removing any leaf debris from the spouting.



EXTREME CLIMATES

In extreme climates a spouting and downpipe system needs to be impervious to all conditions; resistant to the sun, anti-corrosion and able to handle heavy rainfall. Magnum® caters to all of these requirements with ease – a spouting cross sectional area of over 14,000mm² ensures excellent water capture even in heavy rainfall areas and it is made from high quality, UV resistant uPVC that will not corrode.



WILL NOT RUST

Never rusts, no matter what elements your home is exposed to.



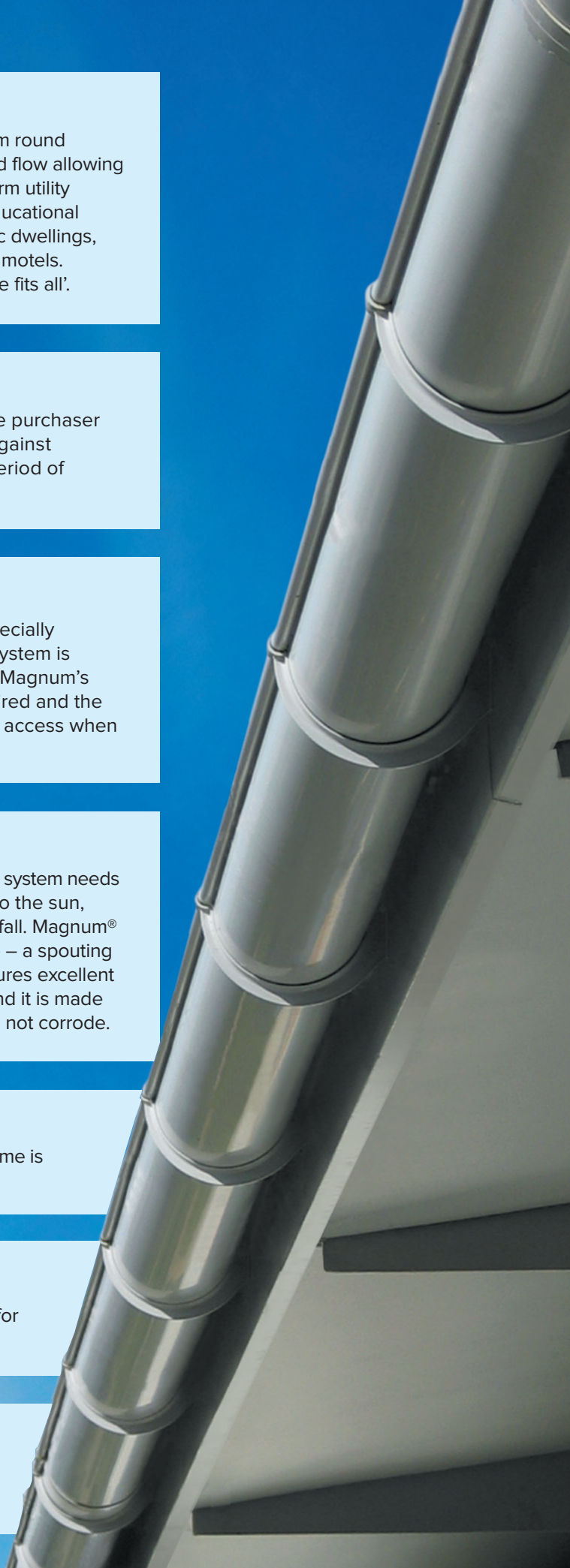
SAFE FOR DRINKING

Complies with AS/NZS 4020: 2005, so safe for collecting drinking water.




100% RECYCLABLE

Used spouting and downpipes can be returned to Marley for recycling.



QUALITY ASSURED

Master Plumbers have given this product their tick of approval. It has been tested by a panel of experienced, registered Master Plumbers so you can rest assured that you are making the best decision for your home.

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