

# MARLEY POWER DUCT SERIES

NEW

PERFORMANCE & ASSURANCE LIKE NO OTHER

Marley manufactures an extensive range of rigid uPVC power duct and bends to convey and protect electrical cables. These are primarily intended for trenched applications at infrastructure or industrial sites.

With the recent update to the NZ Wiring Regulations (AS/NZS 3000:2018) and the citing of the new conduit manufacturing standard (AS/NZS 61386:2015), you can be 100% confident of the authentic qualities of the Marley Power Duct Series to deliver mechanical durability in Medium Duty and Heavy Duty Performance.

Our proven history of performance is backed up with independent verification of product compliance – **PERFORMANCE & ASSURANCE LIKE NO OTHER.**

## FOR COST EFFECTIVE UNDERGROUND INSTALLATIONS WITHOUT COMPROMISE

When designing, specifying and installing large underground trench work, there are several key factors to consider when determining your power duct solution.



- ▶ AS/NZ 3000:2018 Wiring System
- ▶ AS/NZS 61386 Manufacturing Standard
- ▶ 3<sup>rd</sup> Party Licence Verification (e.g. Lic 2755)
- ▶ Best Environmental Practice (BEP) certified

**Marley Power Duct Series will deliver best practice performance in underground installation work i.e. solutions that will minimise installation time, effort and cost.**

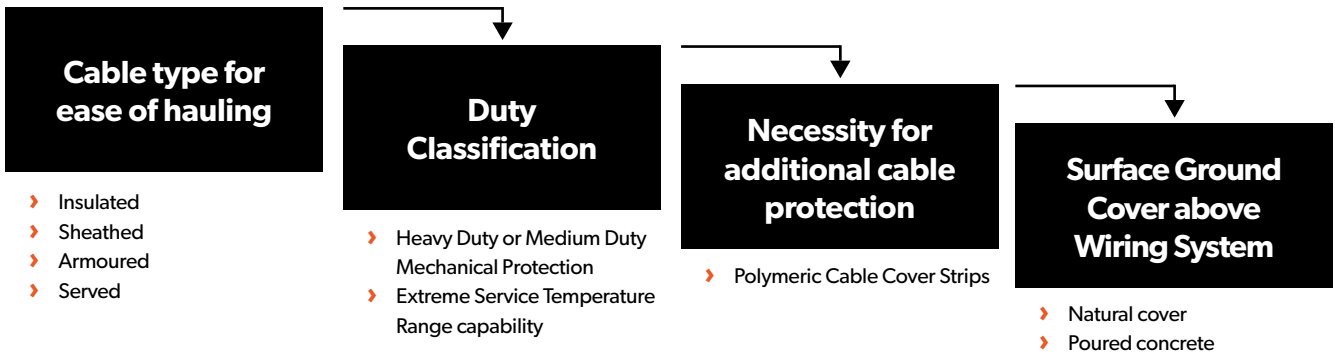
<b>A</b>	<b>B</b>	<b>HD</b>	<b>MD</b>
CATEGORY A UNDERGROUND WIRING SYSTEM	CATEGORY B UNDERGROUND WIRING SYSTEM	HEAVY DUTY 4431	MEDIUM DUTY 3331
SERVICE TEMPERATURE RANGE	HD BENDS EXTENSIVE FITTINGS RANGE	MD BENDS EXTENSIVE FITTINGS RANGE	COMPLIANCE & STANDARDS
			100% RECYCLABLE

# UNDERGROUND WIRING SYSTEMS FOR uPVC POWER DUCT ENCLOSURES

Electrical cables installed underground need to be protected against mechanical damage and have sufficient markings warning of their existence – as stipulated in AS/NZS 3000 Electrical Installations (commonly referred to as the Australian/ New Zealand Wiring Rules).

When installing Marley Power Duct Systems underground, the following design and underground wiring system classification should be adhered to:

## Underground wiring design considerations

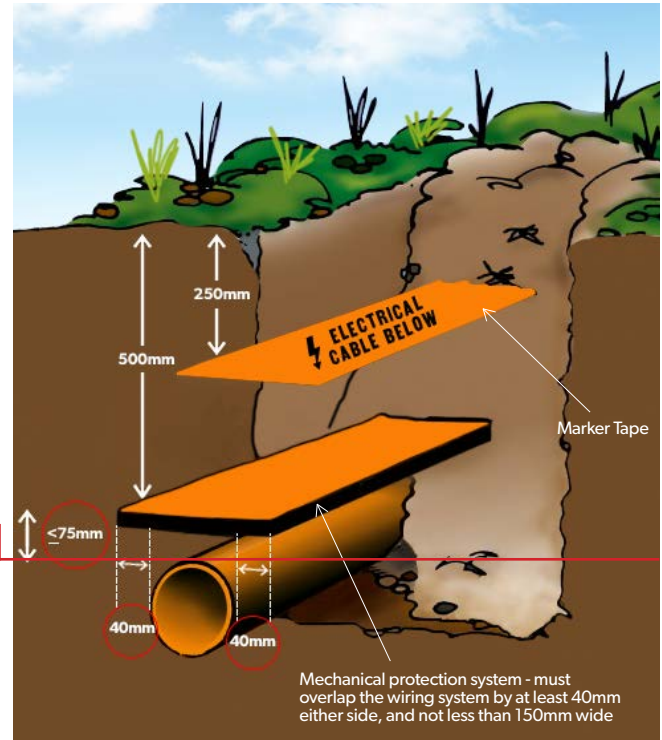
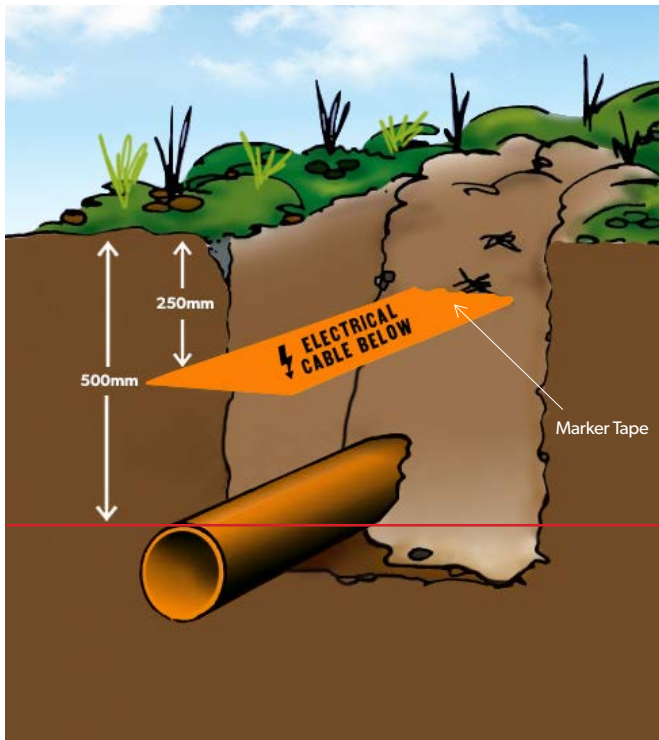


### CATEGORY A SYSTEM

Marley Power Duct System (Heavy Duty) where **NO ADDITIONAL** mechanical protection is required

### CATEGORY B SYSTEM

Marley Power Duct System (Medium Duty) where **ADDITIONAL** mechanical protection is required



**Simplified installation – allows for shallower & narrower trench**

## WHY HEAVY DUTY DUCTING IS BEST PRACTICE

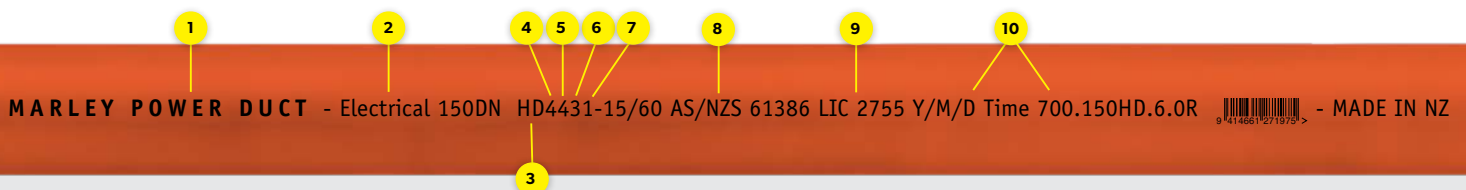
**Specify Marley Power Duct (Heavy Duty) for cost effective underground installations without compromise**

For underground wiring systems where there is no surface covering, significant labour, time and cost savings can be made when installing to CATEGORY A Underground Wiring system compared to CATEGORY B.

**Critically, the longer the trench the greater the savings.**

## BENEFITS OF CATEGORY A

Benefits	Features
Improved trench productivity	<b>Shallower trench</b> (13% less "minimum depth of cover")
	<b>Narrower trench</b> (no additional mechanical protection, therefore no overlap requirement)
	<b>Faster backfilling</b> (install and critical placement of mechanical protection $\leq 75$ mm above duct not needed)
Reduction in materials to be installed	<b>No requirement for Polymeric cable cover strip (AS4702)</b> (AS/NZS3000 to Category B underground wiring regs not relevant)

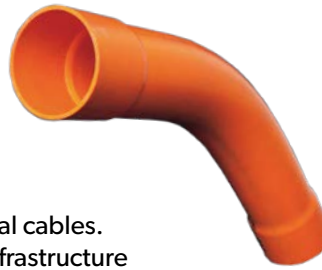


## PRODUCT AUTHENTICITY

Not all brands of Rigid Duct in the market perform to the same level. For proof of intended performance, check the mandatory print requirements that are marked on the Duct.

- |  |  |  |
|--|--|--|
| 1 Manufacturer and/or brand name identification              | 4 Compression Duty Rating (Rating 4 = Heavy Duty) (Rating 3 = Medium Duty) | 7 Maximum Service Temperature rating (Rating 1 = 60°C)                           |
| 2 Designed specifically to protect electrical wiring         | 5 Impact Duty Rating (Rating 4 = Heavy Duty) (Rating 3 = Medium Duty)      | 8 New Manufacturing Standard   |
| 3 Classification Rating (HD = Heavy Duty) (MD = Medium Duty) | 6 Minimum Service Temperature rating (Rating 3 = -15°C)                    | 9 3 <sup>rd</sup> party Licence Verification for the specific manufacturing site |
|  |  | 10 Exact date and time of manufacture and Marley item code for easy tracking     |

## MARLEY POWER DUCT RANGE



Marley manufactures an extensive range of rigid uPVC power duct and bends to convey and protect electrical cables. These are primarily intended for trenched applications at infrastructure or industrial sites.

- **Suitable for use by major power authorities**, the orange coloured MARLEY Power Duct comes standard in 6m lengths.
- **Available in sizes 80mm, 100mm and 150mm**, rated as either **Medium Duty or Heavy Duty** for mechanical durability.
- **For non-duty rated applications**, Marley also offers a range of smaller **power duct and bends from size 32mm to 65mm**.
- **Duct bends are available across a range of radii and is sized and rated** to match the associated duty rating of the duct pipe. **HD bends are also available**.

SIZE	CODE	PRODUCT DESCRIPTION	CRATE QUANTITY	DUTY CLASSIFICATION (AS/NZS 61386)
32	700.32.6.O	MARLEY PWR Duct 32DN 6m OR	230	Non Rated (Manufactured to AS/NZS 1260 dimensions)
40	700.40.6.O	MARLEY PWR Duct 40DN 6m OR	180	
50	700.50.6.O	MARLEY PWR Duct 50DN 6m OR	149	
65	700.65.6.O	MARLEY PWR Duct 65DN 6m OR	96	
80	700.80MD.6.OR	MARLEY PWR Duct 80DN MD 6m OR	66	Medium Duty
100	700.100MD.6.OR	MARLEY PWR Duct 100DN MD 6m OR	60	
150	700.150MD.6.OR	MARLEY PWR Duct 150DN MD 6m OR	28	
80	700.80HD.6.OR	MARLEY PWR Duct 80DN HD 6m OR	66	Heavy Duty
100	700.100HD.6.OR	MARLEY PWR Duct 100DN HD 6m OR	60	
150	700.150HD.6.OR	MARLEY PWR Duct 150DN HD 6m OR	28	

NEW MD 3331

NEW HD 4431

### NOTE:

1. In accordance to AS/NZS 61386.21, Duct designation is typically defined as follows:

- Duct Size  $\geq$  DN100 mm:** Duty Classification is based on Ring Stiffness (SN number) & Impact testing
  - Medium Duty has a stiffness rating to SN4
  - Heavy Duty has a stiffness rating to SN10
- Duct Size  $\leq$  DN100 mm:** Duty Classification is based on Resistance to Compression & Impact testing

2. Very Light Duty (VLD) or Light Duty (LD) classification may be available for Duct Size  $\geq$  DN80 mm on request. These non-stocked products will be subject to minimum order quantities (MOQ) & lead times