

MARLEY POWER DUCT SERIES

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 open trenched applications at infrastructure or industrial sites.

With reference to the NZ Wiring Regulations (AS/NZS 3000:2018) and the citing of the 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, Heavy Duty and Very 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
- ▶ 3rd Party Licence Verification (e.g. Lic 2755)
- ▶ Best Environmental Practice (BEP) certified



Marley Power Duct Series is a fully featured range of duct and fittings to ensure all your underground installation work is hassle free.

A
CATEGORY A
UNDERGROUND
WIRING SYSTEM



SERVICE
TEMPERATURE
RANGE

B
CATEGORY B
UNDERGROUND
WIRING SYSTEM



VHD BENDS
RATED FOR MAXIMUM
PERFORMANCE

VHD
VERY HEAVY DUTY
5531



HD BENDS
EXTENSIVE
FITTINGS RANGE

HD
HEAVY DUTY
4431



MD BENDS
EXTENSIVE
FITTINGS RANGE

MD
MEDIUM DUTY
3331



COMPLIANCE
& STANDARDS



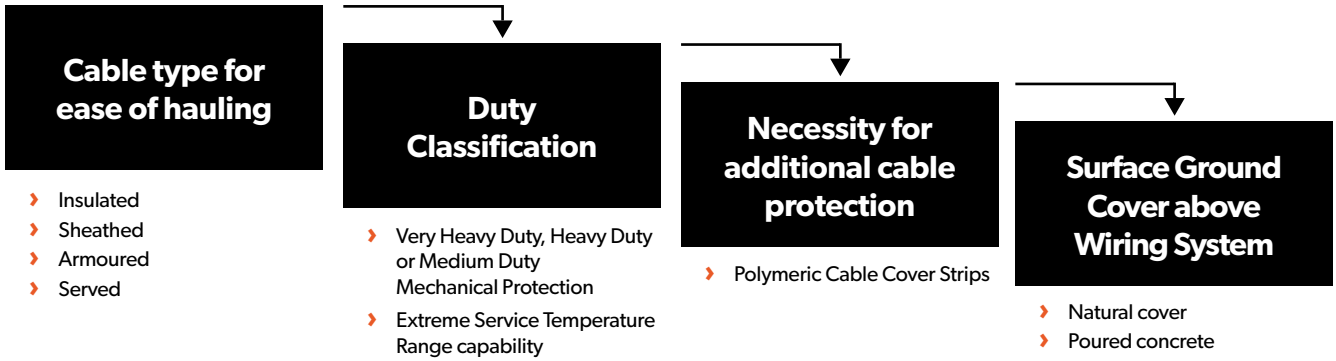
100%
RECYCLABLE

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

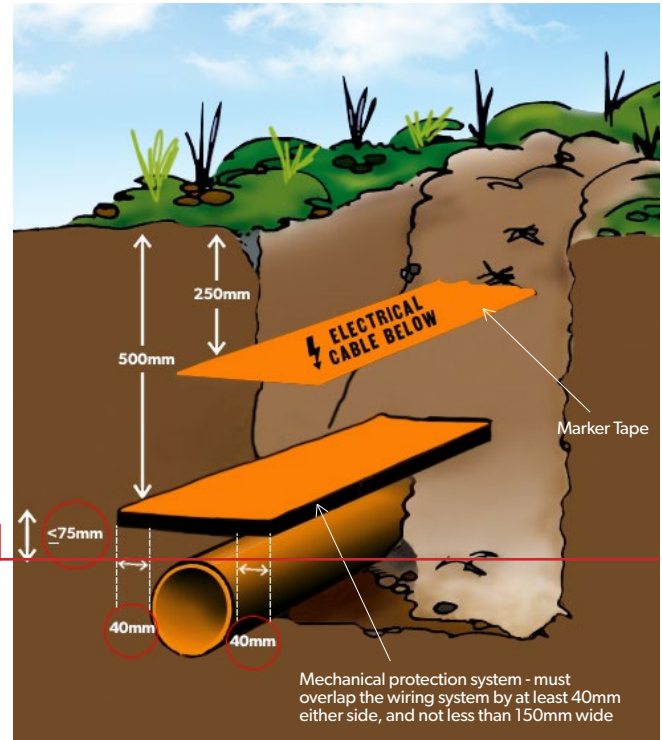
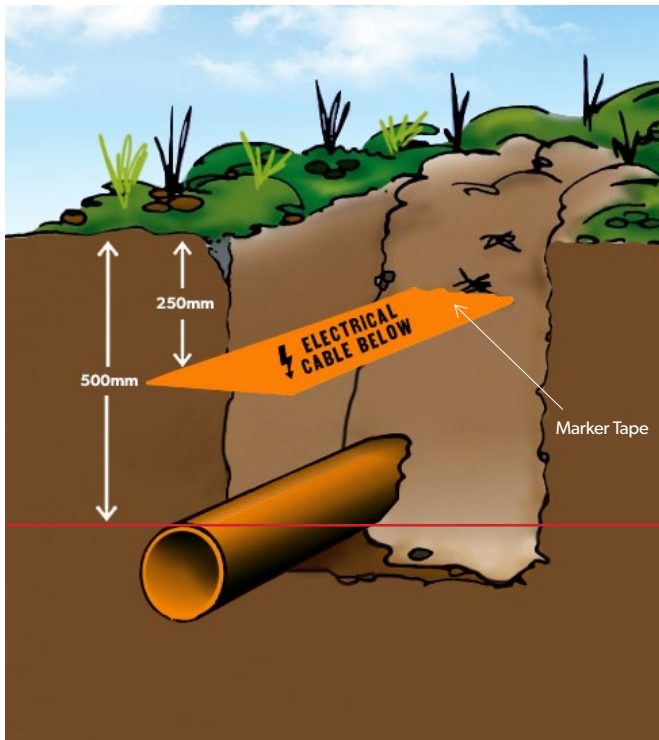


CATEGORY A SYSTEM

Marley Power Duct System (Heavy Duty / Very 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

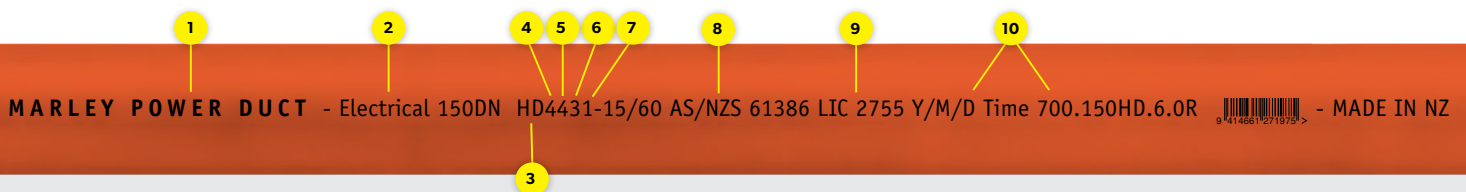
Specify Marley Power Duct (Heavy Duty / Very Heavy Duty) for cost effective underground installations without compromise

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

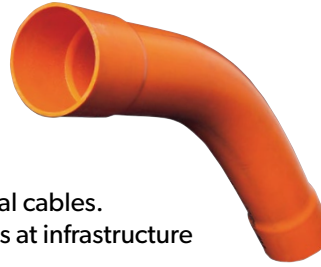


PRODUCT AUTHENTICITY

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.

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

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 open 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, Heavy Duty or Very Heavy Duty** for mechanical durability.
- **Duct bends are available across a range of radii and is sized and rated** to match the associated duty rating of the cable duct e.g. installing Marley underground HD bends with Marley HD cable duct will satisfy Category A underground wiring system.

The following selection guide can be used to identify Marley products and their relevance to AS/NZS 3000 Wiring Rules, Section 3.11 Underground Wiring Systems.

Underground Wiring Rules (AS/NZS 3000)	CATEGORY A		CATEGORY B	
Product Description	Marley ARMA Conduit (OD) x 4m lengths	Marley Power Duct (ID) x 6m lengths	Marley Power Duct (ID) x 6m lengths	
Mechanical Duty Classification (AS/NZS 61386)	Heavy Duty / Very Heavy Duty (no additional mechanical protection required)		Medium Duty (Additional mechanical protection required)	Non Rated Duty* (Additional mechanical protection required)
20	01.20HD.OR	x	x	x
25	01.25HD.OR	x	x	x
32	01.32HD.OR	x	x	700.32.6.O
40	01.40HD.OR	x	x	700.40.6.O
50	01.50HD.OR	x	x	700.50.6.O
65	x	x	x	700.65.6.O
80	x	700.80HD.6.OR	700.80MD.6.OR	x
100	x	700.100HD.6.OR 700.100VHD.6.OR	700.100MD.6.OR	x
150	x	700.150HD.6.OR 700.150VHD.6.OR	700.150MD.6.OR	x

*1. Manufactured to AS/NZS 1260 dimensions
 2. For use where cable enclosures are optional
 3. When referenced to local power authority requirements and/or specific project design specification

NOTE:

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

- a. Duct Size ≥ 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
 - Very Heavy Duty has stiffness rating to SN25

- b. Duct Size < 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 ≥ DN80 mm on request
 These non-stocked products will be subject to minimum order quantities (MOQ) & lead times