

CALIBRE[®]

TRENCH







FULLY FEATURED CABLE DUCTING FOR OPEN CUT INSTALLATIONS

Marley manufactures an extensive range of rigid uPVC & PE cable ducts to convey and protect electrical cables while observing sustainable manufacturing practices. Primarily intended for trench applications at infrastructure or industrial sites, straight lengths of cable ducting are joined with uPVC fabricated bends or PE electrofusion and compression fittings.

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 CALIBRE Trench Cable Duct System 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 for product compliance to achieve long term durability and assist with a cost-effective cable duct installation.

FULLY FEATURED WITH EASY PRODUCT SELECTION CRITERIA

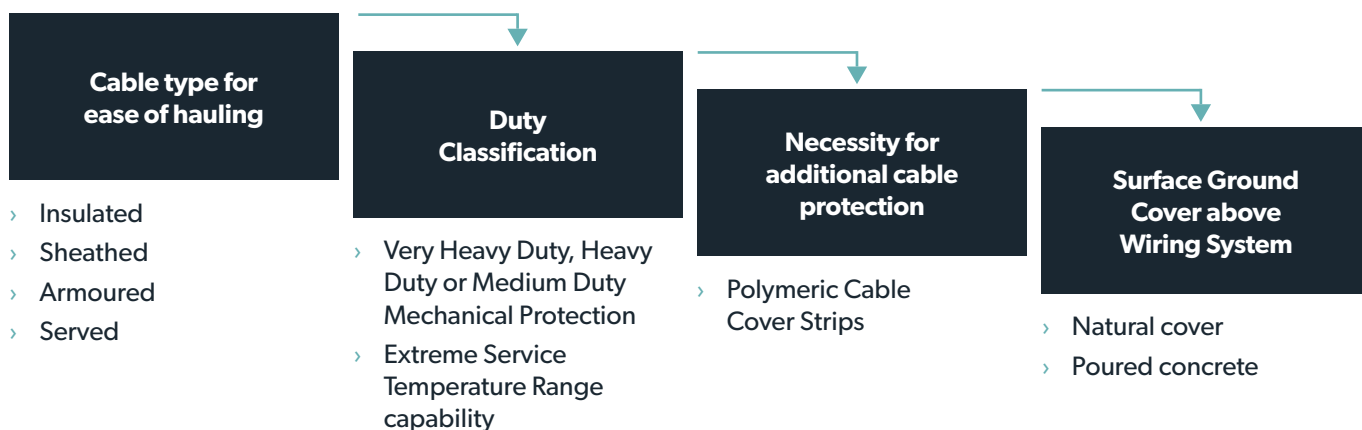
DURABILITY		Category A Underground Wiring System
		Very Heavy Duty
		Heavy Duty
		Category B Underground Wiring System
PRODUCTIVITY		Medium Duty
		Service Temperature Range
		Service ID
ASSURANCE		Extensive PE Fittings
		Extensive PVC Bends
		PE / PVC 100% Recyclable
		Standards Compliance & Licence
		EPD Declaration

UNDERGROUND WIRING SYSTEMS FOR TRENCH CABLE 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 CALIBRE Trench Cable Duct Systems the following design and underground wiring system classification should be adhered to:

UNDERGROUND WIRING DESIGN CONSIDERATIONS

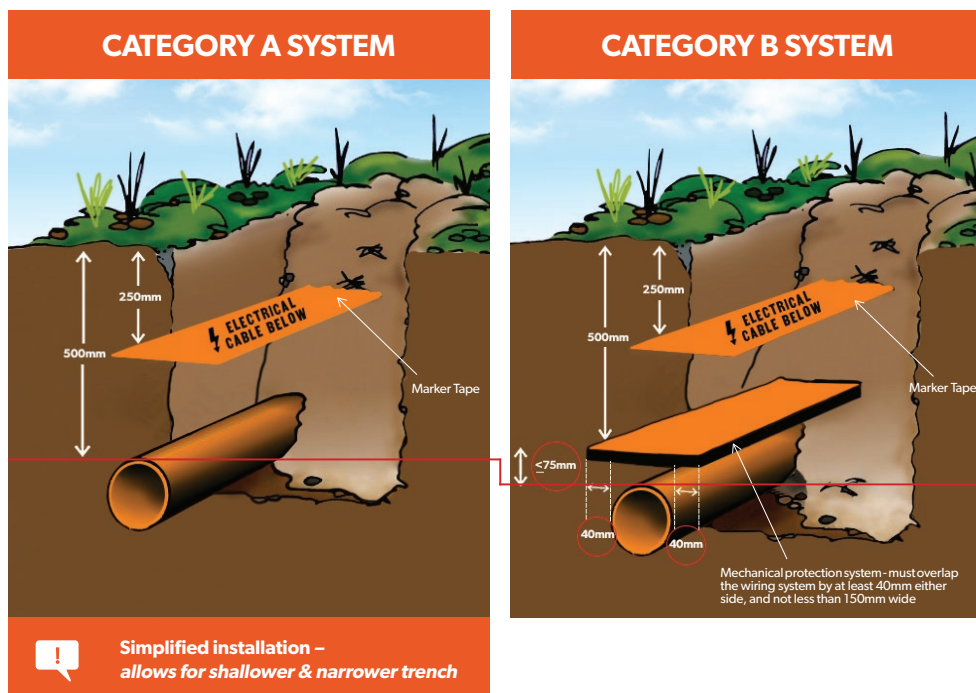


CATEGORY A SYSTEM

CALIBRE® Trench cable duct (Heavy Duty / Very Heavy Duty) where **NO ADDITIONAL** mechanical protection is required

CATEGORY B SYSTEM

CALIBRE® Trench cable duct (Medium Duty) where **ADDITIONAL** mechanical protection is required



WHY HEAVY DUTY DUCTING IS BEST PRACTICE

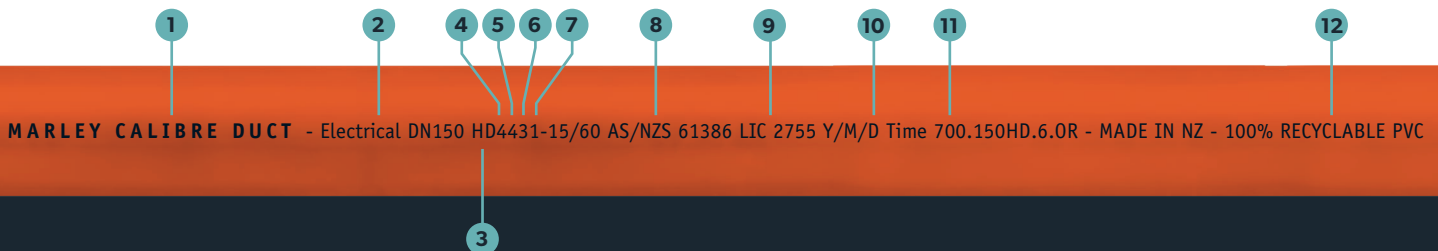
Specify CALIBRE Trench Cable Duct Systems (Heavy Duty / Very Heavy Duty) for cost effective underground installations without compromise.

For 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 cable duct in the market perform to the same level. For proof of intended performance, check the mandatory print requirements that are marked on the cable duct.

- 1 Manufacturer and/or brand name identification
- 2 Designed specifically to protect electrical / fibre optic cables
- 3 Classification Rating
(VHD = Very Heavy Duty)
(HD = Heavy Duty)
(MD = Medium Duty)
- 4 Compression Duty / Ring Stiffness Rating
(Rating 5 = Very Heavy Duty)
(Rating 4 = Heavy Duty)
(Rating 3 = Medium Duty)
- 5 Impact Duty Rating
(Rating 5 = Very Heavy Duty)
(Rating 4 = Heavy Duty)
(Rating 3 = Medium Duty)
- 6 Minimum Service Temperature rating (Rating 3 = -15°C)
- 7 Maximum Service Temperature rating (Rating 1 = 60°C)
- 8 Cable duct manufacturing standard
- 9 3rd party Licence Verification for the specific manufacturing site
- 10 Exact date and time of manufacture
- 11 Marley item code for easy tracking
PVC = 700 Series
PE* = 600 Series
- 12 Recyclability

*PE inherently has flame propagating properties.

CALIBRE TRENCH CABLE DUCT SYSTEM



Approved for major electrical utility work, CALIBRE Cable Duct Systems is a range of trench (and trenchless) solutions that convey and protect power and communication cables.

- › Manufactured to the electrical purposed AS/NZS 61386 standard
- › Unified PVC & PE cable duct range
- › Durability rated product performance to Very Heavy, Heavy & Medium Duty mechanical classification
- › Fully Featured with easy product selection criteria (Durability, Productivity & Assurance)
- › Extensive range of PVC sweep bends and PE fittings also available

The following selection guide can be used to identify Marley ARMA & CALIBRE 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	ARMA Conduit (OD) x 4m lengths	CALIBRE Trench Duct (PVC) (ID) x 6m length	CALIBRE Trench Duct (PE) (OD) x 12m length	CALIBRE Trench Duct (PVC) (ID) x 6m length	
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*
20	01.20HD.OR	x	x	x	x
25	01.25HD.OR	x	x	x	x
32	01.32HD.OR	x	x	x	700.32.6.O
40	01.40HD.OR	x	x	x	700.40.6.O
50	01.50HD.OR	x	x	x	700.50.6.O
65	x	x	x	x	700.65.6.O
80	x	700.80HD.6.OR	x	700.80MD.6.OR	x
100	x	700.100HD.6.OR 700.100VHD.6.OR	x	700.100MD.6.OR	x
140	x	x	600.140HD.12.OR	x	x
150	x	700.150HD.6.OR 700.150VHD.6.OR	x	700.150MD.6.OR	x
160	x	x	600.160VHD.12.OR	x	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, cable 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 ≥ SN4
 - › Heavy Duty ≥ SN10
 - › Very Heavy Duty ≥ SN25
- b. **Duct Size < DN100 mm:** Duty Classification is based on Resistance to Compression & Impact testing

PROOF OF ASSURANCE

