



CONLOK

Traditional. **Upgraded.**

Technical Information Booklet

DEMON CAT

A **metpro** Brand
Group

Innovation & Excellence in Manufacturing



Up to **75%** Labour Savings

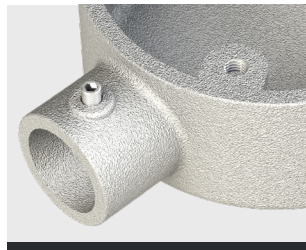


The Highlights



No need to thread conduit tube

With Conlok's unique built-in grub screw



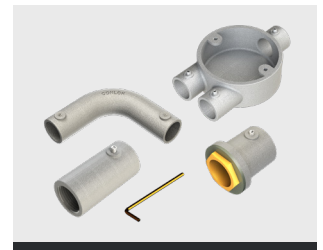
Fully galvanised system

Offering greater corrosion resistance



Fast-fix solution

Ideal for major projects where cost & safety are critical



Full range of accessories

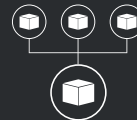
All of the essential items for quick installations



Increased on-site safety



Compliant to the latest standards



Reduced on-site storage



Used on major UK projects

Manufactured from malleable iron with a hot dip galvanised finish (bespoke clean room finish also available - please contact us for more information)

Conforms to BS EN 61386-1:2008+A1:2019 (Conduit Systems for Cable Management)

Conforms to BS EN 61386-21:2004 (Conduit Systems for Cable Management - Rigid Conduit Systems)

Manufactured in accordance with the Low Voltage Directive 2014/35/EU

Conlok grub screws are manufactured from Grade 12.9 Steel

Unthreaded spouts offer enhanced corrosion resistance against more traditional products

Where Conlok is installed

A small selection of major UK projects using Conlok

Sir Chris Hoy Velodrome,
Glasgow



Tesco Extra,
Middlesbrough

BBC Fire & Security,
Derby

HMP Sites;
West Lothian
Aberdeen
Bedford

Edinburgh Airport,
Edinburgh

Kendrew Barracks,
Oakham

Pure Gym,
Bath Spa

Proctor & Gamble,
Manchester

Wellington Barracks,
Oakham

**Tees Rep
Biomass Power
Station,**
Glasgow

Heathrow T2,
Heathrow

Wellington Barracks,
Oakham



MOD Bicester,
Oxfordshire



FAQs

What British Standard does the Conlok system comply with?

Conlok complies with BSEN61386-21:2004, the same standard as traditional steel conduit systems.

Why aren't Conlok boxes shiny like your standard malleable boxes?

Our standard boxes are hot dip galvanised before threads are cut into each spout.

The process of cutting threads strips away the protective galvanising coating leaving these areas exposed to potential rust and decay. In order to mitigate this, we took the decision to apply a further zinc coating on these areas, in order to provide extra corrosion resistance and ensure the threads are not hampered. With Conlok products not requiring the need for threads, they simply do not need this additional finish meaning they are the only fully galvanised system on the market.

Does Conlok comply to the British Standard for earth continuity?

Yes. All Conlok products fully comply to the relevant standard and indeed exceeded the requirements. Please see the enclosed test report on page (x) for more information.

Are there any vibration issues with Conlok grub screws coming loose?

No. Conlok grub screws are manufactured from 12.9 Grade steel with a cup pointed screw, designed to 'bite' through the galvanising and into steel conduit lengths.

What strength do Conlok grub screw's have to attach to steel conduit?

Conlok grub screws achieved a mass of 450N over a 48 hour period, confirming they are more than capable of carrying out the task at hand.

Is Conlok suitable for external use?

Yes. Conlok is suitable for external applications however the use of CTI Mastic Sealant around spouts is recommended for high rainfall areas.

Do Demon Cato supply male & female Conlok adaptors?

No. Demon Cato manufacture a dedicated female adaptor only. However, with the addition of a standard conduit nipple, Conlok female adaptors can be used as male adaptors.

How do you know if an electrician has tightened the grub screw?

If necessary, each Conlok box or accessory can be marked using an idellible marker, as would be done with a distribution breaker, to show it has been installed & tightened.

Are Conlok products on Luckins?

Yes. Our full product offering is available to view on the Luckins Database. All of the relevant codes can be found on page (x).

Do I need an online account to access Demon Cato data sheets and BIM files online?

No. To make things as simple as possible, all our data sheets and BIM Revit files are available for download without the need for an account at www.metpro.co.uk.

BSEN61386-21:2004

Certificate



Declaration of Test Results

BSI Product Services hereby declares that the item described below has been tested by BSI and complies with the requirements of


BS EN 61386-21:2004 Clauses 8, 9, 10.7, 11.2, 14.1 and 14.2

The complete detail of the tests performed and the results are recorded in BSI Test Report No: 2867226597 Dated: 5 September 2008

Description of item tested: 20mm diameter steel conduit with steel terminal boxes and couplers
25mm diameter steel conduit with steel terminal boxes and couplers

Submitted by: Demon Cato Limited
10 Dryden Road
Bilston Glen Industrial Estate
Edinburgh
EH20 9LZ

Declaration authorised by:

G R Essam 
Title Principal Engineer
Date 5th September 2008

Attention is drawn to the conditions upon which this declaration is issued, namely:

1. This declaration does not indicate provide or imply any measure of Approval, Certification, Supervision, Control or Surveillance by BSI to this or any related product.

2. This Declaration applied only to the particular sample tested and to the specific tests carried out as detailed in the Report referred to above.

3. The general and specific conditions of the BSI Product Services, PC082 apply in all respects. Copies of this leaflet are available on request.

BSI Product Services, Maylands Avenue, Hemel Hempstead, Hertfordshire HP2 4SQ

For a copy of the original certification, please speak with your Account Manager or contact our team on **0121 552 2100** or by email at **sales@metpro.co.uk**.

BSEN61386-21:2004

Test Report (page 1)

DEMON CATO

Test Report

Report No 286/7226597

Client; Demon Cato Ltd
10 Dryden Road
Bilston Glen Industrial Estate
Edinburgh
EH21 9LZ

Authority & date Quotation Acceptance from client Quotation Number BSI 0000137364 dated 21 May 2008 Equipment Number 10098804

Items tested Steel Conduits and Fittings

Specification BS EN 61386-21:2004 Clauses 6, 8, 9, 10.7, 10.8, 11.2, 14.1 and 14.2
Independent test

Results See Summary of Results on Page 2

Prepared by L J Carrington Test Engineer

Authorized by G R Essam Principal Engineer

Issue Date 4 September 2008

Conditions of issue This Test Report is issued subject to the conditions stated in current issue of *PS082* 'General conditions relating to acceptance of testing'. The results contained herein apply only to the particular sample/s tested and to the specific tests carried out, as detailed in this Test Report. The issuing of this Test Report does not indicate any measure of Approval, Certification, Supervision, Control or Surveillance by BSI of any product. No extract, abridgement or abstraction from a Test Report may be published or used to advertise a product without the written consent of the Managing Director, BSI Product Services, who reserves the absolute right to agree or reject all or any of the details of any items or publicity for which consent may be sought.



BSI Product Services Maylands Avenue Hemel Hempstead Hertfordshire HP2 4SQ Telephone: (08450) 765600

BSEN61386-21:2004

Test Report (page 2)



Report No 286/7226597
Page 2 of 4

TESTING, EXAMINATION AND ASSESSMENT OF STEEL CONDUITS SUBMITTED AS INDEPENDANT TEST SAMPLES

INTRODUCTION

At the request of Demon Cato Limited the steel conduits detailed below, were tested and assessed against the requirements of BS EN 61386-21:2004 Clauses 6, 7, 8, 9, 10.7, 10.8, 11.2, 14.1 and 14.2 from 21 July 2008, as indicated on the following pages of this report. This request was made in a Quotation Acceptance from the client Quotation Number BSI 0000137364 and dated 21 May 2008. It is emphasized that assessments were not made against the other clauses of the Specification. This Report only relates to the actual samples which have been tested and assessed. The results obtained do not necessarily relate to samples from the production line and in no way imply that the performance or quality of the continuing production will be maintained.

TEST ITEMS

10 off consecutive lengths of 20mm diameter steel conduit with associated fittings
10 off consecutive lengths of 25mm diameter steel conduit with associated fittings

BSEN61386-21:2004

Test Report (page 3)



Report No 286/7226597
Page 3 of 4

EXAMINATION AND TEST

CLAUSE	ASSESSMENT																		
7. MARKING																			
7.6 The marking shall be durable and easily legible.	Pass																		
8. DIMENSIONS																			
The external diameters were checked with gauges detailed in IEC 60423.	Pass																		
<table border="1"> <thead> <tr> <th>Nominal Size</th> <th>Dimension</th> <th>Specified</th> <th>Actual</th> </tr> </thead> <tbody> <tr> <td rowspan="2">20mm</td> <td>Inside Diameter (mm)</td> <td>-</td> <td>16.14 -</td> </tr> <tr> <td>Wall thickness (mm)</td> <td>-</td> <td>1.33 -</td> </tr> <tr> <td rowspan="2">25mm</td> <td>Inside Diameter (mm)</td> <td>-</td> <td>21.08 -</td> </tr> <tr> <td>Wall thickness (mm)</td> <td>-</td> <td>1.89 -</td> </tr> </tbody> </table>	Nominal Size	Dimension	Specified	Actual	20mm	Inside Diameter (mm)	-	16.14 -	Wall thickness (mm)	-	1.33 -	25mm	Inside Diameter (mm)	-	21.08 -	Wall thickness (mm)	-	1.89 -	
Nominal Size	Dimension	Specified	Actual																
20mm	Inside Diameter (mm)	-	16.14 -																
	Wall thickness (mm)	-	1.33 -																
25mm	Inside Diameter (mm)	-	21.08 -																
	Wall thickness (mm)	-	1.89 -																
9. CONSTRUCTION																			
9.1 Within the Conduit System there shall be no sharp edges, burrs or surface projections which are likely to damage insulated conductors or cables or inflict injury to the installer or user.	Pass																		
10. MECHANICAL PROPERTIES																			
10.7 Tensile test																			
The Conduits and Fittings were tested in accordance with the method described in this clause. When a tensile force of 1000N and 500N (Heavy and medium grade) was applied for 2 mins the samples remained properly assembled to the conduit and there was no damage visible to normal or corrected vision without magnification.																			
<table border="1"> <thead> <tr> <th>Nominal Size</th> <th>Actual Force Held (N)</th> </tr> </thead> <tbody> <tr> <td>20mm</td> <td>1000N</td> </tr> <tr> <td>25mm</td> <td>500N</td> </tr> </tbody> </table>	Nominal Size	Actual Force Held (N)	20mm	1000N	25mm	500N	Pass												
Nominal Size	Actual Force Held (N)																		
20mm	1000N																		
25mm	500N																		

BSEN61386-21:2004

Test Report (page 4)



Report No 286/7226597
Page 4 of 4

EXAMINATION AND TEST (Continued)

CLAUSE		ASSESSMENT
10.8	Suspended load test The Conduit Fittings were tested in accordance with the method described in this clause. When a load of 450N was applied for 48 hours the samples were deemed to have passed as there were no cracks visible to normal or corrected vision without magnification and there was no deformation of the conduit impairing its use.	Pass
11	ELECTRICAL PROPERTIES	
11.2	Bonding test The Conduits and fittings were tested in accordance with the method described in this clause. The resistance was not greater than 0.1 Ω .	Pass
14.	EXTERNAL INFLUENCES	
14.1	Degree of protection provided by enclosure (IP testing) The IP rating for this product was IP30	Pass
14.2	Resistance against corrosion	
14.2.2	Tests for resistance to corrosion for steel and steel composite conduit systems The steel conduits and fittings were tested in accordance with the method described in clause 14.2.2.1 for high protection. The steel conduits and fittings displayed no signs of corrosion.	Pass



Copyright Metpro Group 2022