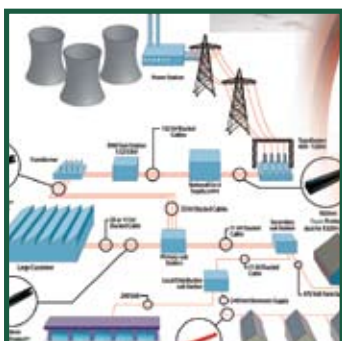
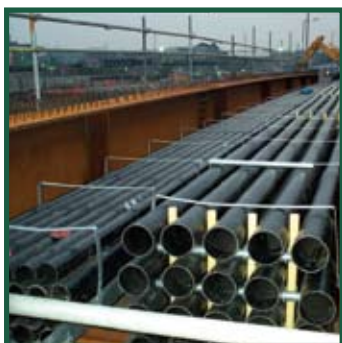




WWW.CABLEJOINTS.CO.UK
THORNE & DERRICK UK
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TEL 0044 117 977 4647 FAX 0044 977 5582
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DUCT SYSTEMS CATALOGUE



PVC-U and PE solutions for the Telecom and Power markets.
Also incorporating drainage systems, general duct and other specialist products.

Power**Protect**+

fibre**Flow**™

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Introduction

Company Background

Emtelle UK Limited is a market leading producer for Telecommunication and Power Duct Systems.

Emtelle has continued to be the leading innovator in this field since extrusion started at their factory in Jedburgh (PVC-U) in 1980 and was complemented by the Hawick (PE) manufacturing facility in 1992.

- Emtelle manufacturing capability is 35,000 Tonnes of PVC-U Duct and 16,000 Tonnes of PE Duct per year.
- Emtelle's duct systems include a comprehensive ranges of bends, connectors, adaptors, tees, access fittings and chambers, termination and building entry and testing fittings. Thus providing customers with system solutions from a single reputable source.

To further complement the telecommunications and power sectors, Emtelle also produce a range of products which are used within the building industry, including EN1401 Under Ground Drainage and general purpose duct.

Emtelle merged with the Danish company Dantex in 2007. As the leading supplier of HDPE multi-duct systems in Scandinavia, the combined knowledge and experience of the two companies will continue to bring innovation and quality products to ducted systems.



Standards

First awarded ISO accreditation by BSI in January 1992, Emtelle has evolved its quality systems over the past ten years and is currently an ISO 9001-2000, ISO 14001 accredited company. Emtelle also has OHSAS 18001 certification.

Operational Health and
Safety Management System



OHSAS 18001
OHS502300

Quality Management
System



ISO 9001
FM 14305

Environmental
Management System



ISO 14001
EMS 71022

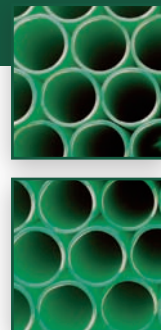
Specifications

All standard product specification (EN50086 and EATS 12-24 Rev. 2) and data sheets can be located on our web site: www.emtelle.com. Alternatively copies can be sourced via the customer service team.

Clients

Emtelle's policy of listening carefully to our customers – and designing systems to meet their requirements has led to an impressive list of clients:





Customer Service

Customer Orders are processed by a team of Customer Sales Support Specialist / Agent, situated in the offices at our Hawick facility.

Each application area has its own dedicated Customer Sales Support Specialist, who acts as point of contact for all enquiries relating to your order, from the first enquiry and ordering, through to despatch, delivery and invoicing of your goods.

Orders can be placed via fax, email or post, and will be acknowledged back to you within 48 hrs of receipt. The Customer Sales Support Specialist responsible for your order will confirm, in writing, exactly what has been ordered, what the price is, and will work with you to achieve a mutually convenient delivery date and time.

The Customer Sales Support Specialist will liaise with Production to facilitate the manufacture of your order and once your goods are available to despatch, work with our dedicated Logistics Provider to ensure that your order is conveyed to you within the required timescale.

At Emtelle we pride ourselves on our ability to provide second-to-none delivery and after-sales product support, backed up by excellent Customer Service. Customer Complaints are taken very seriously, and Emtelle is careful to log and analyse all complaints, to allow us to further improve our service.

Orders and Information:

UK Power

01450 364 011

UK Telecoms

01450 364 008

UK and Ireland Building Products

01450 364 012

BT

01450 364 009

Contact Details:

Address: Emtelle UK Ltd
Haughhead
Hawick
TD9 8LF

Phone sales enquiries and orders to: 01450 364 000

Fax sales enquiries and orders to: 01450 364 001

Email sales enquiries to: sales@emtelle.com

Product details and specification sheets are available on the web site: www.emtelle.com

Emtelle office and manufacturing locations, along with our Terms and Conditions are located at the back of this brochure.

Logistics Capabilities

Emtelle work closely with its chosen logistic companies.

All vehicles are curtain sided, 45 foot articulated lorries with several vehicles fitted with Moffett Mountie fork off load, to enable delivery to sites without off-loading facilities.

We endeavour to ensure standard delivery time for full load order are 3 working days from receipt of order and product availability. Part loads are 5-7 working days from receipt of order and product availability. Orders requiring a Moffett Mountie fork off load will be subject to longer lead times (and an additional charge) due to the limited availability.

Small deliveries of accessories can be sent on overnight carrier provided order received by noon and product available.

Account Facilities

Emtelle insures all its UK Customers with Euler and offers a net monthly account where this can be obtained. We are also able to accept payment via BACS, CHAPS, Debit/Credit Card, cheque and cash.

Packaging

Emtelle packaging is designed to ensure that all products reach the customer in good condition. Emtelle is constantly developing and improving its packaging and appreciates feedback.

PVC-U ducts are supplied on non-returnable wooden U –frames. The duct pallets are designed to be stored on even, stable ground, and must not be stored more than 3 pallets high. Product packaging should be recycled locally.

Accessories are supplied in non-returnable woven polypropylene sacks, which are biodegradable. The sacks are designed to be stored on an even, dry and stable surface area. They are not to be stacked upon.

Large diameter power bends may be shipped on non-returnable wooden framed stillages. These are designed to be stored on even, stable ground and should not be stacked upon.

Small diameter coils are supplied shrink wrapped in groups of 4 coils to prevent transport damage.

Telecoms

System Overview

Emtelle have supplied the UK Telecoms Industry with a comprehensive range of products since 1980 including:

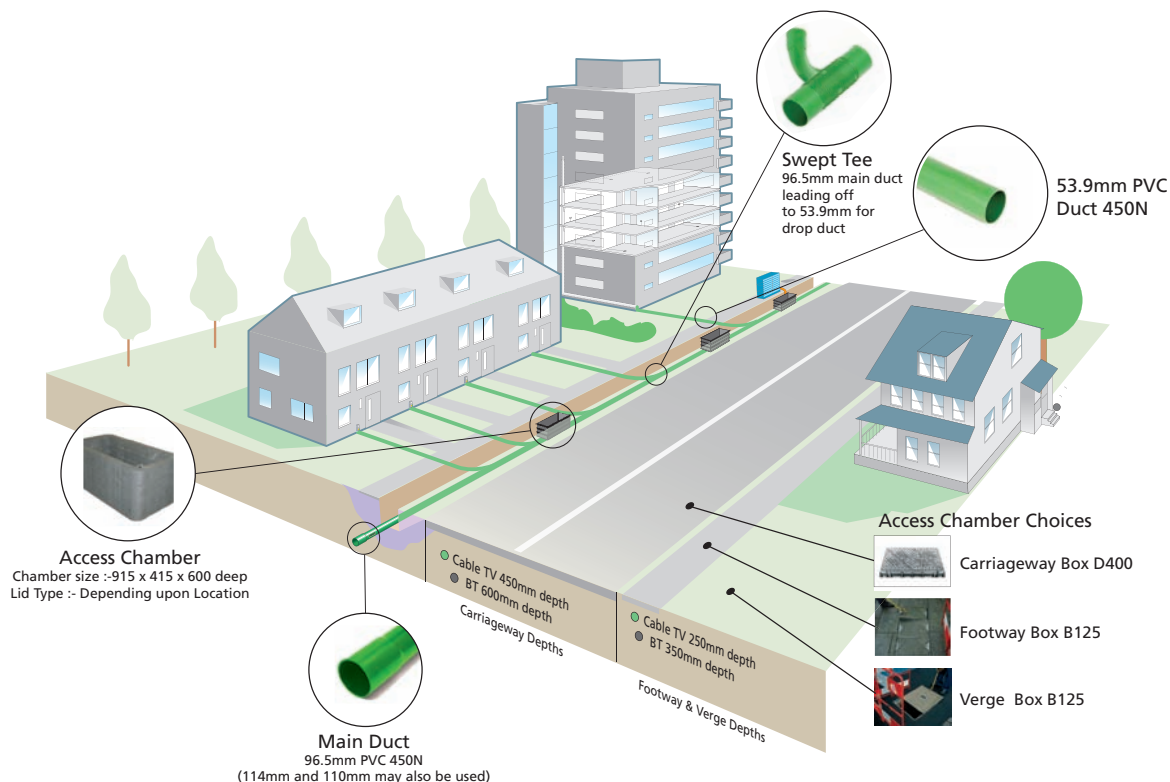
- PVC-U Primary Duct systems
- HDPE Sub Duct & Duct Systems
- Blown Fibre Tubing (**fibreFlow**)
- Cable In Duct
- Multi Duct
- Ancillary Items

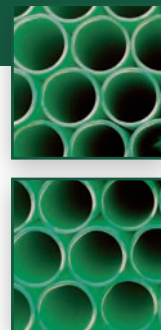
PVC-U Primary Duct Systems

- Manufactured from virgin PVC-U polymer = 100% reliable performance.
- Accredited ISO 9001 Quality Management System, ISO 14001 Environmental Standard, Kitemark EN1401, ISO 18001
- Solid wall construction, capable of being back-filled with "As Dug" materials where appropriate and not affected by sharp stone impingement.
- Smooth bore ensuring easier and safer installation of sub-ducts and cables owing to lower internal friction.
- Comprehensive range of sizes : 20mm – 250mm OD, to meet standard and bespoke requirements.
- Range of wall thickness choices to meet variety of compression strength specified.
- Bespoke print detail to meet client needs.
- Standard Interference Fit / Push fit socket systems & Ring Seal Socket systems.

Polyethylene Duct and Sub Duct Systems

- Strong, flexible and impact resistant yet lightweight
- Size range from 16mm – 250mm
- Flexible & easy to work with, even at well below zero temperature
- Easy placement in Primary Duct systems
- Long life resistance to fatigue
- Resistant to many common liquids and chemicals
- Immune to most corrosion or fungal contamination
- Supplied in continuous lengths up to 4000m (size dependant)
- Packaged on single or multi way, metal skeletal or wooden drums, or alternatively coils
- Extensive range of colours for individual duct identification for multi way products
- Full range of connectors, termination and cable placement ancillary products





PVC Primary Duct Systems



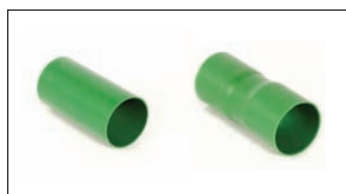
Duct Spigot end

Green 96.5mm Duct		
Product Code	Description	Quantity per pallet (mts)
1879L	6 m Lengths	690
314L	4 m Lengths	460



Bend

Green 96.5mm Bends		
Product Code	Description	Quantity per bag (Item)
2625	11.25°	20
2623	22.5°	20
2777	45°	20
1900	90°	10



Connector Sleeve

Double Socket

Green 96.5mm Connectors		
Product Code	Description	Quantity per bag (Item)
1250S	Connector Sleeve	75
166	Double Socket Connector	50



Split Swept Tee

Swept Tee

Green 96.5mm Swept Tees and Moulded 'Y' Branch		
Product Code	Description	Quantity per bag (Item)
1552	Swept Tee 96.5mm -54.9mm	20
1880	Split Swept Tee 96.5mm -54.9mm	25
2066	Y Branch 96.5mm - 96.5mm	10



Y Branch

PVC Primary Duct Systems

PVC Primary Duct Systems

Split Duct and Repair Kits

Split Duct and Duct Repair Kits consist of the parts required to allow repair of damaged or jointed duct in the field

Green 96.5mm Accessories			
Product Code	Description	Quantity per bag (m or bag)	Quantity per Pallet (Mts)
2393	Split Duct 3 m Length	3	168
2226	Duct inserts for Repair Kit	20	160

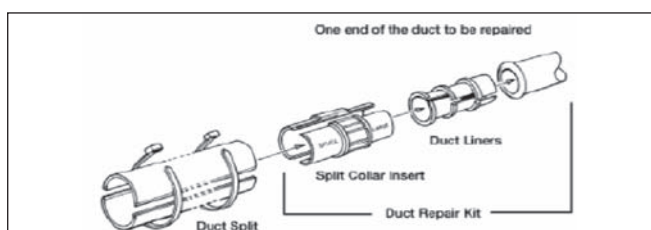
Split Duct – supplied in 3m Lengths

Repair Kit – Enables the split duct to be connected to the in-situ duct at both ends of the repair. One kit consists of:

2 No. – Split collar inserts

6 No. – duct liners

4 No. – Cable ties



96.5mm End Caps and Inserts		
Product Code	Description	Quantity per bag (Item)
1875	Red End Cap	120

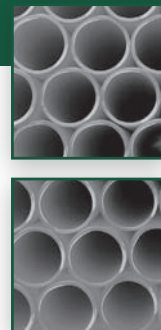


* Please note the end caps are intended to fit over the end of the spigot socket.

Green 96.5mm Accessories		
Product Code	Description	Quantity per bag (Item)
550	96.5mm-53.9 mm Reducer	25
2856	Caulking Glands	20



Green 53.9mm Products		
Product Code	Description	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
163L	3 m Length Duct	1110
3240	11.25° Bend	120
2564	22.5° Bend	120
1904	45° Bend	60
571	90° Bend	60
12585	Connector Sleeve	75
2822	Double Socket Connector	50
1902	Yellow End Cap	250
2211	Y Branch (53.9mm – 53.9mm)	100
3333	Caulking Gland	50



PVC Primary Duct Systems

Green 88.9mm Product Range

Product Code	Description	Quantity per pallet duct or bag for accessories (Mts or Item)
1938 L	6 m Length Duct	828
498L	4 m Length Duct	552
1917	11.25° Bend	40
1731	22.5° Bend	40
1734	45° Bend	20
1729	90° Bend	10
93S	Connector Sleeve	75
2697	Double Socket Connector	75
1740	Yellow End Cap	250
623	Swept Tee (88.9mm – 53.9mm)	20

Green 110mm Product Range

Product Code	Description	Quantity per pallet duct or bag for accessories (Mts or Item)
3806	6.6 m Length Duct	594
3818	11.25° Bend	20
3817	22.5° Bend	20
3839	45° Bend	15
3840	90° Bend	10
3823	Connector Sleeve	50
3841	Double Socket Connector	50
4583	Swept Tee (110mm – 53.9mm)	18
4507	Split Duct 3 m Length	3
4508	Duct inserts for Repair Kit	20

Grey 54mm Product Range

Product Code	Description	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
1562	3 m Length Duct	1110
3014	22.5° Bend	60
3292	45° Bend	75
2848	90° Bend	15
1902	Yellow End Cap	250
3666	Caulking Gland	50

PVC Primary Duct Systems

Grey 96.5mm Product Range		
Product Code	Description	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
857L	6 m Length Duct	690
3229	9° Bend	15
2629	18° Bend	15
4494	22.5° Bend	20
3230	90° Bend	10
519	Connector Sleeve	60
1875	Red End Cap	250
4479	Swept Tee (96.5mm – 53.9mm)	20
3683	Y Branch (96.5mm – 96.5mm)	25
3286	Split Duct 3 m Length	3
3285	Duct inserts for Repair Kit	20
3476	Caulking Gland	20
3189	96.5mm - 53.9mm Reducer	25
3476	Caulking Gland	20

White 96.5mm Product Range Cable and Wireless Print		
Product Code	Description	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
108L	6m Length Duct	690
3398	4m Length Duct	460
1096	11.25° Bend	15
1103	22.5° Bend	15
1104	45° Bend	20
1105	90° Bend	10
1106	Connector Sleeve	60
1110	Double Connector	50
3435	Duct inserts for Repair Kit	20
3436	Split Duct 3 m Length	3

Please note only the duct has the specific Cable and Wireless Print. All bends and accessories are unprinted.

White 54mm Product Range Cable and Wireless Print		
Product Code	Description	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
929	6m Length Duct	2220
935	3m Length Duct	1110
2078	11.25° Bend	50
2079	22.5° Bend	60
1632	45° Bend	60
1631	90° Bend	60

Additional bespoke telecoms duct available in Appendix A.



Multi Duct Systems

A useful alternative to traditional duct and sub duct systems allowing a one-pass installation of a system capable of taking multiple of cables. Opticom and Quadcom offer differing features and benefits for a range of applications.



Opticom

Single pass cable management systems eliminating the need to winch in sub duct. Socket coupling with outer seal ring acting against the mating pipe. Sub duct sockets ring sealed onto the sub ducts. Pre-lubricated and extruded to close tolerances to five easy on-site push-fit jointing.

Green Opticom 4-Way		
Product Code	Description	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
5939	6.6 m Length Duct (Red, Blue, Yellow and Grey)	594
2147	11.25° Bend	5
2145	22.5° Bend	5
2154	Connector Sleeve	20

Green Bespoke Opticom 4-Way		
Product Code	Description	Quantity per Pallet Duct (Mts)
4156	6.6 m Length Duct Scottish Power	594
5787	6.6 m Length Duct Scottish and Southern Electricity	594

Product Code	Description	Quantity per Bag (Item)
3340	Green Flexi-bend	5
3182	Yellow duct plugs	1
3218	Terminator Type B (4-Way)	50
3613	Opticom Repair Kit	10
2609	Blowing Gun	1

Quadcom

A sturdy and rugged trunk route cable management system, ideal for congested urban and inner city areas and routes with shallow depth burial. 4 times 42 U PVC ducts with formed sockets, clipped together in bundles of four with clips at 800mm centres.

Can also be laid in flat configuration or as singles or un-clipped at intervals to allow the run to pass with side of an obstruction.



3427 Green 11.25 bend

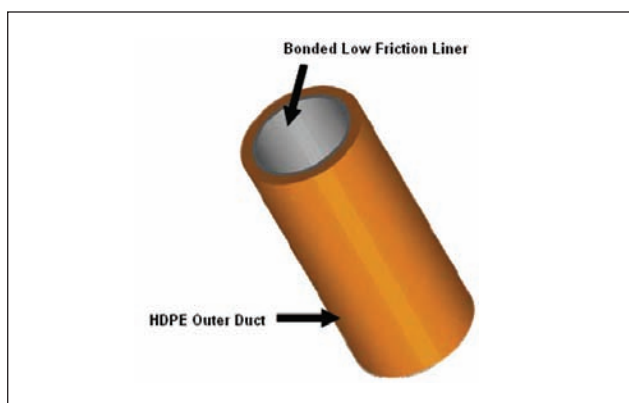
Product Code	Quadcom	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
4626	4 Green 6 m Lengths Duct	528
3427	Green 11.25 Bend	15
3428	Green 22.5 Bend	15
3429	Green 45 Bend	10
3410	Green Connector Sleeve	150
3441	Spacer	200
3102	Expanding plugs	200

HDPE Duct and Sub Duct Systems

These systems provide a flexible duct in continuous lengths up to 3000m to allow easy, safe and rapid placement of fibre optic cable in main trunks and customer drop applications alike.

- Duct is made from high quality HDPE and features a bonded low friction dry liner, to enable easy cable placement.
- HDPE ducts are supplied in coils or on returnable drums (wood or metal).
- Finished product is supplied capped ensuring the ends are watertight to prevent ingress of contamination or foreign bodies likely to cause problems when cabling.
- Ducts are available with a standard 8kN pull-rope pre-installed.
- Duct is marked as standard at one metre intervals as follows:
 - Incremental Metre-Mark
 - Manufacturers product code
 - Production Date
 - Size of duct
 - Customer name and / or other special designations
- Colours variations / colours and stripes are also available on request
- For multiple sub duct requirements one to five way drums are available

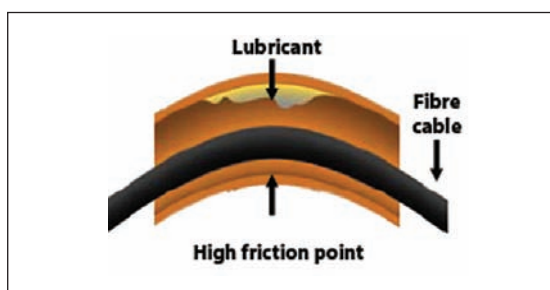
A full range of connectors, termination and cable placement ancillary products are available.



Features:

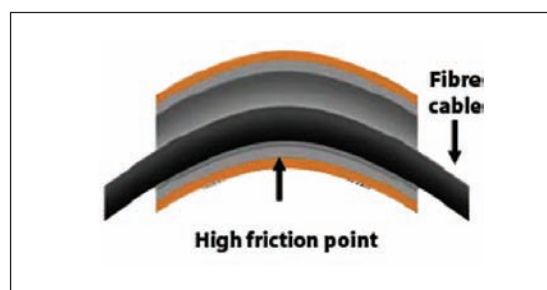
- Rapid Deployment technique
- Reduces overall network construction and activation costs
- Bespoke requirements can be accommodated
- Cable blowable
- Cable installation utilising the pre-installed pulling rope
- Provides a dedicated cable path
- Reduces the risk of damage to fibre optic cables

How the Entelle Bonded Low Friction Liner Works.



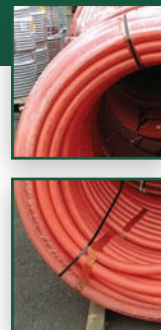
Traditional Duct

When heat is generated, the lubricant spreads out – which can result in direct contact between the Cable and the HDPE duct. The friction caused by this contact increase the risk of damage to the cable during installation. Moreover, the lubricant gradually accumulates in place where there is no load.



Entelle Low Friction Liner

In this system, the cable is only ever in contact with the low friction liner, which thus reduces the risk of melting. The associated low friction co-efficient also make it easier to blow or pull cables over long distances.



HDPE Duct and Sub Duct Systems

Sub Duct Supply method

Sub duct is supplied on wooden drums which are returnable and recycled within the Emtelle business.

Following supply a three month period for deployment is allowed before notification of collection is required. Emtelle collect the metal drums and recycle them within the business. Failure to make the drum available for collection 3 months following date of delivery will result in a monthly rental charge.

Standard Drum sizes:

Drum size will vary depending on product size and configuration. Below are details of the smallest and largest drum sizes used. Drum material will also vary depending on size, however smaller drums tend to be wooden.

Largest Metal/Wooden Recyclable drum – 2400mm Flange diameter
900mm Barrel diameter

Smallest Wooden Recyclable drum – 1400mm Flange diameter
600mm Barrel diameter

Standard Product

Size (mm)	Drum Configuration	Section Length (m)	Total Quantity (m)	Colour(s)	Product Code
25/20	1	3000	3000	GR	5745
28/24	4	500	2000	BK,BL,OR,GN	4488
31/25	1	2000	2000	GN	3584
31/25	4	500	2000	BK,OR,GR,GN	4682
32/26	1	2000	2000	RD	5675
32/26	2	1000	2000	OR, GN	5500
32/26	4	500	2000	BK,OR,GR,GN	5627
32/26	4	500	2000	BL, BE,GN,OR	5613
32/27	1	3000	3000	YL	5704
32/27	1	2000	2000	GN	4654
32/27	1	2000	2000	BK	4660
32/27	2	1000	2000	BK	5739
32/27	1	2000	2000	BL	5365
32/27	3	1000	3000	BK	5741
32/27	4	500	2000	BK,OR,GR,GN	50275
32/27	4	500	2000	BL,OR,BK,GN	5393
32/28	1	3000	3000	GN	4388
32/28	4	500	2000	BK,OR,GR,GN	4354
35/30	3	500	1500	BK	5555
38/32	1	1000	1000	GN	5620
40/32	1	1000	1000	GN	5499
40/33	3	500	1500	GN,OR,RD	5659
63/50	1	500	500	GR/YL Striping	5507

Colour Coding Key Orange = OR

Beige = BE Red = RD
 Black = BK Yellow = YL
 Blue = BL White = WH
 Brown = BR Violet = VL
 Green = GN
 Grey = GR

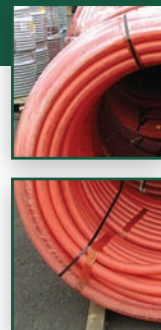


HDPE Duct and Sub Duct Systems

Bespoke Product

Size (mm)	Drum Configuration	Section Length (m)	Total Quantity (m)	Colour(s)	Customer Name	Striping	Rope	Product Code
20/16	1	2000	2000	BK	Torch Telecom		5Kn	3809
25/20	1	2200	2200	BK	Prysmian		8Kn	5225
25/20	4	1000	4000	BL	C&W	YL,RD,GR	N/A	5431
25/20	3	1000	3000	BL	C&W	YL,RD,GR	N/A	5431A
31/25	4	500	2000	BK,OR,GR,GN	Global Crossing UK		8Kn	5019GX
31/25	4	500	2000	OR,GN,GR,BL	Global Communications		8Kn	4208
31/25	4	495	1980	WH	Colt Telecom	GR,YL,BR,VL	N/A	4338
31/25	4	495	1980	WH	Colt Telecom	BL,OR,GN,RD	N/A	4339
31/25	1	2000	2000	GN	THUS		8Kn	4381S
31/25	1	3000	3000	BL	THUS		8Kn	4733
31/25	4	500	2000	OR,GN, BK,BL	THUS		8Kn	3718
31/25	5	500	2500	OR,GN,BK,BL,WH	THUS		8Kn	4866
32/26	1	1000	2000	GN	NTL		8Kn	5088
32/26	4	500	2000	BL,GN,OR,BK	NTL		8Kn	5414
32/27	4	2000	2000	BK,OR, BL,GN	EasyNet		8Kn	3944
32/27	3	500	3000	BK	Energis		8Kn	3636L
32/27	4	2000	2000	BK,GN,OR,GR	Global Crossing Ireland		8Kn	4432
32/27	1	500	2000	GN	NTL		8Kn	5345
32/27	3	500	1500	BK,GR,WH	NTL		8Kn	5718
32/27	4	500	2000	GN,BK,BL,OR	VNSL Networks		8Kn	5608
32/27	1	500	2000	BK	SP Networks		8Kn	5631
32/27	4	500	2000	BL,GN,OR,BK	Virgin Media		8Kn	5752
34/28	4	500	2000	GN,BK,OR,GR	Verizon		8Kn	3873
35/30	3	500	1500	RD,YL,GN	Scottish & Southern Energy		8Kn	5734
35/30	3	1000	1500	RD,YL,BL	Scottish & Southern Energy		8Kn	5736
35/30	4	2000	2000	RD,YL,GN,OR	Scottish & Southern Energy		8Kn	5658
35/30	4	500	2000	RD,BL,GN,GR	Scottish & Southern Energy		8Kn	5554
35/30	1	500	1000	GN	NTL		8Kn	5635
40/33	1	500	2000	BK	Global Voice Networks		8Kn	5623
40/33	4	1000	2000	GR	GEO	RD,GN,YL,BK	8Kn	5614





HDPE Sub Duct Ancillary Products

Aluminum Connectors

A range of threaded connectors for connecting two pieces of HDPE duct. Both ends are threaded to within 5mm of the centre point. The two threads are asymmetrical, to aid duct grip in use. The threads at each end are opposite handed so a single turning action screws onto both ducts at one time. The threads are slightly tapered to accommodate duct diameters across the OD tolerance range. Connectors are marked with tightening directional arrow and duct OD size.

Product code	Duct Size	Body OD	Body Length	Quantity per bag (Item)
5037	21mm	26mm	90mm	10
4448	25mm	30mm	90mm	10
3771C	31mm	36mm	90mm	10
3650M	32mm	37mm	90mm	10
3900	34mm	39mm	90mm	10
4232	35mm	40mm	90mm	10
4067	37mm	42mm	90mm	10
4424	40mm	45mm	90mm	10
5412	44mm	49mm	90mm	10
9317	48mm	58mm	90mm	10
9318	50mm	61mm	90mm	10



Straight Compression Connectors

Compression connectors are designed to provide a suitable joint and seal between lengths of polyethylene duct, for cable blowing purposes.

Product code	Duct Size	Nut OD	Fitting Length	Quantity per bag (Item)
7891	16mm	39mm	105mm	10
4859	20mm	48mm	121mm	10
4286	25mm	54mm	125mm	10
3917P	32mm	64mm	145mm	10
4390	35mm	64mm	145mm	10
7895	40mm	82mm	177mm	10
4065	50mm	96mm	201mm	10
5361	63mm	113mm	230mm	10



HDPE Sub Duct Ancillary Products

Lubricant

Cable lube 20LT + Microspheres (Entelle Code 4400)

Water based thixotropic lubricant which reduces friction during installation of cable and sub-duct. Containing high viscosity silicone polymers and perfectly spherical microspheres, it is the market – leading lubricant and the only product which conforms to British Telecom specification MAT 138A. To date no other competitor product has met this demanding specification. It is non-toxic, non-flammable and has no physical or chemical effects on cable sheath or sub-duct.



Expanding Plugs

To keep main duct free of water, dirt and grit between duct-laying and sub-duct/cable placement. A rope eye at the spigot end of the plug keeps ropes secure and reduces box congestion.

- All plastic construction
- Corrosion proof
- Water-tight
- Easy installation and removal
- Reusable

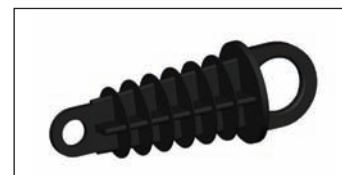
Product Code	Duct ID Range	Quantity per Bag (Item)
4410A	24-30mm	12
4410D	29-38mm	12



End Plugs

Tapered mechanical end plug for sub-ducts.

Product Code	Duct ID Range	Quantity per Bag (Item)
7205	19-22mm	100
3884	25-28mm	100
4094	28-34mm	100



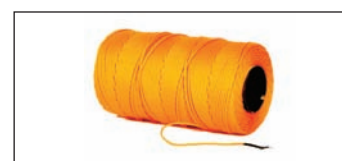
Rope Products

Rope products which can be used for cable pulling

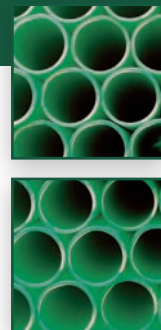
Product Code	Description	Quantity per Roll (Mts)
4563	BLUE POLYPROP 6mm x 500m ROPE	500
13375	8KN ROPE ORANGE (3660 MTS)	3660
13375B	8KN ROPE ORANGE (4150MTS)	4150



4563



13375



Ancillary Products

Duct Protection and Marking Products

Marker tapes to alert following utility services of the general location of fibre ductwork and HDPE trench tiles to offer token protection from damage from trenching tools.

Green Marker Tapes

Green being the N.J.U.G colour code for CATV and Telecomm ductworks, these come with standard print of "Caution - Fibre Optic Cables Below" or "Caution Telecoms Cable Below".

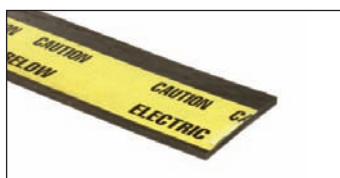
These can be supplied with bespoke Colour/Printline giving company name and Emergency Free phone Number.



Product Code	Description	Quantity per Bag (Item)
4857	MARKER TAPE: CAUTION TEL CABLES (365m per roll)	1
4785	MARKER TAPE: FIBRE OPTIC CABLE (365m per roll)	1

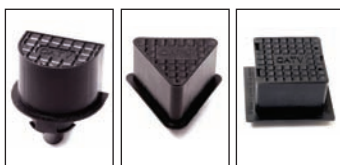
Trench Marker Tiles

- Cable tiles are a heavy protection product manufactured from high impact recycled polyethylene sheet and are suitable to withstand damage from plant and hand tools.
- They are also suitable for fibre optic cables.
- Cable tiles are fully jointed, laid overlapped and held firm with plastic jointing pegs.
- They are a suitable direct replacement for concrete covers and steel plate.
- These are generally supplied with standard print of "Caution - Fibre Optic Cables Below" or "Caution Telecoms Cable Below".
- Bespoke Colour/Printline giving company name and their Emergency free phone number can also be supplied.



Product Code	Description	Quantity per Pallet (Item)
5606	CABLE TILE 1000x150x11mm 'Caution - Fibre Optic Cable'	500

Termination boxes



Product Code	Description	Quantity per Bag (Item)
4531	D Shaped Swivel Termination Box	50
4579	Triangular Termination Box	50
4604	Square SID Termination Box	50



Lubricant

Cable lube 20LT + Microspheres (Emtelle Code 4400)

Water based thixotropic lubricant which reduces friction during installation of cable and sub-duct. Containing high viscosity silicone polymers and perfectly spherical microspheres, it is the market – leading lubricant and the only product which conforms to British Telecom specification MAT 138A. To date no other competitor product has met this demanding specification.

It is non-toxic, non-flammable and has no physical or chemical effects on cable sheath or sub-duct.

Ancillary Products

Access Chambers

Manholes and their covers installed in Europe should meet the requirements for the European Standard EN124. This applies to all situations, road and off-road and all materials. Products designed to EN124 are grouped and classified depending on their installation:

Group 1 (A15) – Areas which can only be accessed by pedestrians and pedal cyclists.

Group 2 (B125) – Footways, pedestrian areas and comparable areas, car parks and car parking decks for slow moving wheel loads including HGV.s

Group 3(C250) – For gully tops installed in the area of kerbside channels of roads which when measured from the kerb edge, extend a maximum of 0.5m into the carriageway and a maximum of 0.2m into the footway.

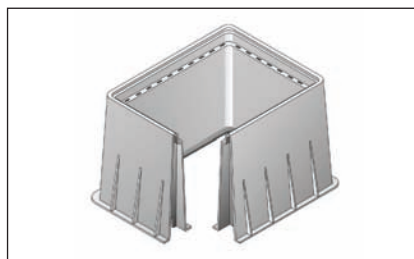
Group 4 (D400) – Carriageways of roads (including pedestrians streets), hard shoulders and parking areas for all types of fast moving road vehicles

Group 5 (E600) – Areas imposing high wheel loads, e.g. docks, aircraft pavements

Group 6 (F900) – Areas imposing particularly high wheel loads e.g. aircraft pavements



Single Wall Access Chamber

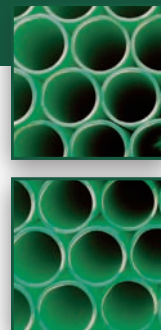


Twin Wall Access Chamber

Design Features:

- Recyclable
- Robust – no breakage waste
- Completely impervious to water
- Nitrogen injection creates cellular core (CFC free)
- High strength to weight ratio
- High stiffness to weight ratio
- Easy to cut for duct entries
- Meets B125 standard of EN1424

Product Code	Description	Top Box Dimensions (LxW) mm	Base Dimension (LxWxD) mm
TW1/2	Twin Wall Access Chamber	640 x 340	700 x 400 x 365
41912	Access Chamber 141912 S/wall	435 x 300	540 x 400 x 310
32415	Access Chamber 132415 S/wall	645 x 400	835 x 590 x 390
73018	Access Chamber 173018 S/wall	780 x 450	825 x 495 x 465



Ancillary Products

Telecoms Sectional Access Chambers

Preformed access chambers offer users de-skilled, fast track construction methods with a single site visit without the need for concrete backfill. It is possible to complete an installation (from excavation to reinstatement) in just over one hour.

Chambers have been independently tested to meet the requirements for Class C250 of BS EN124:19954 making them suitable for all non-carriageway applications including areas subject to slow moving HGV loads.

Quadboxes are available in standard 150mm deep structural twinwall ring section providing maximum depth flexibility and strength. BT has approved the Quadbox system for use within its network. Duct entries are also simple to achieve using a standard hole saw mounted on a cordless drill.

Advantages of the Quadbox

- Excellent side wall stiffness
- No requirement for concrete surround – 'as dug' or type 1 backfill will be suitable
- Perfect for overbuilding on an existing site
- No second visit to site required
- Deskill installation process
- Ease of cutting duct entries
- No site material waste

Product Code	Description	Ring Dimensions (LxWxH) mm	Number per pallet
9766	Quadbox Q4 FW4	915 x 445 x 150	32
9949	Quadbox Q6 FW6	1310 x 610 x 150	17
9948	Quadbox Q2	725 x 255 x 150	42
9947	Quadbox Q1	600 x 450 x 150	40



Ancillary Products

Sectional Access Chambers / Covers and Frames

Access Chamber Kits

Ultima Stackable chamber is a SMC Glass Re-enforced polyester resin chamber and HDPE base, suitable for verge and footway installations/ EN124 (European Standard for manhole cover) D400 class complaint. Badged with manufacturers ID/EN124/Kitemark/Class Rating.

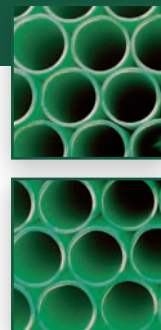
Ultima section box system consists of pre-formed ring sections of depth 150mm which can be stacked on top of each other to form chambers of varying depth. Each ring section is made of twin wall vertical ribs spanning between the walls and castellated to positively interlock with the neighbour above and below.

A base section is a standard ring section with the HDPE base secured to the bottom.



Footway 4		
Product Code	Description /product type	Dimensions L x W x D (mm)
5480	Access Chamber Kit (Includes Box, Frame and Concrete Cover)	915 x 445 x 900
9204	Access Chamber only	915 x 445 x 900
9117	Additional Rings	915 x 445
9118	Base Unit	915 x 445

Footway 6		
Product Code	Description /product type	Dimensions L x W x D (mm)
9022	Access Chamber Kit (Includes Box, Frame and Concrete Cover)	1310 x 610 x 750
9203	Access Chamber only	1310 x 610 x 750
5397	Additional Rings	1310 x 610
5396	Base Unit	1310 x 610



Ancillary Products



Covers and frames for CATV Access Chambers

Concrete Cover and Steel Frame

Suitable for use in footpaths, car parks, grass verges, and areas with slow moving traffic including HGV's. Cover and frames are certified to the European Standard Class B125 of BS-EN124 and kite marked.

Product Code	Description	Clear Opening (mm)	Overall Size (mm)	No. Covers	Badge	Pack Qty
TW1R	CONC LID FOR TW1/2 CATV BADGED	560 x 240	626 x 306 x 52	1	CATV	35
1419S	CONC LID FOR 41912 CATV BADGED	380 x 230	467 x 316 x 52	1	CATV	30
1324S	CONC LID FOR 32415 CATV BADGED	550 x 315	635 x 401 x 52	1	CATV	24
1730S	CONC LID FOR 73018 CATV BADGED	730 x 460	825 x 556 x 52	1	CATV	16

Standard size and Badge Variations:

Product Code	Description	Clear Opening (mm)	Overall Size (mm)	No. Covers	Badge	Pack Qty
9053	CONC LID FOR FOOTWAY 4 BOX (JUF4)	915 x 445	1007 x 537 x 52	1	NO BADGE	16
5090	CONC LID FOR FOOTWAY 6 BOX (JUF6)	1310 x 610	1402 x 702 x 52	2	NO BADGE	10
4776	CONC LID FOR FOOTWAY 10 BOX (JUF10)	2320 x 740	2412 x 832 x 52	3	NO BADGE	5
4816	CONC LID FOR FOOTWAY 4 BOX (JUF4)	915 x 445	1007 x 537 x 52	1	CATV	16
4582	CONC LID FOR FOOTWAY 6 BOX (JUF6)	1310 x 610	1402 x 702 x 52	2	CATV	10
4776A	CONC LID FOR FOOTWAY 10 BOX (JUF10)	2320 x 740	2412 x 832 x 52	3	CATV	5

Additional bespoke badging and sizes are available. Appendix B has further examples.



Ductile Iron Cover and Frames

Ductile iron one man-operable D400 covers and frames with a unique slide over action for safe easy opening. Cover and frames are certified to the European standard Class D400 of BS-DN124 and kite-marked.

Product Code		Description	Clear Opening(mm)	Depth (mm)	Pack
Badge					
CATV	None				
9561	5111	CW1 100mm	600 x 600	100	10
9755	4707	CW1 150mm	600 x 600	150	10
9756	9718	CW2 100mm	1200 x 675	100	6
9757	4716U	CW2 150mm	1200 x 675	150	6
9701	-	CW3 150mm	1800 x 675	150	3

Appendix B has further examples of bespoke badging.

Ancillary Products

Access chamber Furniture



Bolt on Step Iron
Wall Bearer and Cable Bearer
With locking pin in situ.



Anchor Iron

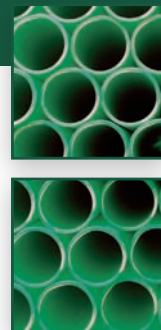


Locking Pin

Product Code	Description	Length (mm)	No. hole Positions	Pack Qty
9887	Wall Bearer No.1	178	1	25
4966	Wall Bearer No.2	278	2	10
4499	Wall Bearer No.3	508	5	10
9460	Wall Bearer No.5	813	9	8
9988	Wall Bearer No.8	1270	15	6
9989	Wall Bearer No. 10	1575	19	4
9990	Wall Bearer No. 12	1880	23	4

Product Code	Description	Length (mm)	Pack Qty
9991	Cable Bearer No.3	115	40
4577	Cable Bearer No.5	165	30
9071	Cable Bearer No.8	242	25
4498	Cable Bearer No.12	343	10
9992	Cable Bearer No.18	495	6
9993	Cable Bearer No.24	648	6

Product Code	Description	Pack Qty
4500	Locking Pins	200
4496	Manhole Step InSitu	10
9072	Manhole Step Bolt On	10
4839	Plastic Sump	25
9499	Foundation Bolts	100
9498	Anchor Irons	5



Cable in Duct



'Cable in Duct'

Emtelle provides 'Cable In Duct' for both the Telecoms and Electricity market and has the ability to place fibre optic or copper cables in HDPE duct from 25mm to 63mm (Outside Diameter). The 'cable in duct' products have been developed to meet customer demand for products that reduce network construction costs. They provide an easy to use, rapid deployment technology. They can be deployed using a wide variety of construction and installation methods. The cable in duct system is a bespoke system with the cable being placed in the duct either "In Line" at the point of manufacture, or retrospectively depending on the specification of the cable. This product is advantageous where high speed / low cost construction techniques are adopted in rural locations with the obvious benefits which include:-

- Bespoke Lengths to meet individual project requirements.
- Added protection over and above the alternative of directly burying cables.
- No secondary cable placement following duct or sub duct installation.
- Product can be shipped to site on standard or bespoke drums to meet client / installer requirements. Typically we can ship up to 2000m of 40mm Duct (Pre-cabled) on a standard drum (2.4m flange by 1.1m width – metal skeletal)
- Pre and post production cable testing is also available upon request.
- Low Friction inners ensure the cable can be removed post installation, should this be required and the duct can be re-used.
- The standard SDR ratio of 'cable in duct' is SDR11 however a higher SDR (thicker wall) can be accommodated where required.



Typical Duct Size	
OD	ID
25	20
32	26
40	32
50	41
63	50

PowerProtect+

Product overview

Emtelle UK have developed a comprehensive range of Power Duct Systems and accessories designed to meet performance requirement for underground power cables. Our duct meets the industry standard EATS 12-24 revision 2. Our systems include:

- Class 1 Solid Wall PVC-U Duct System guaranteeing 450N compression performance at operating temperatures up to 75 Degrees C
- Class 2 Solid Wall PVC-U Duct System guaranteeing 450N compression performance at operating temperatures up to 50 Degrees C
- Class 3 coiled Solid Wall HDPE duct systems for service cables and specialist applications

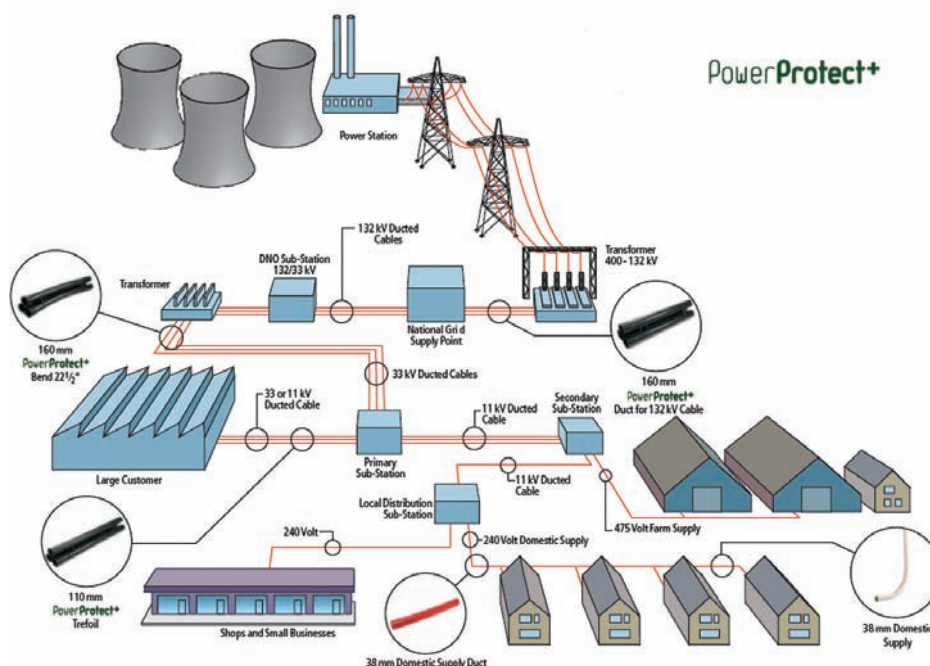
Emtelle Power Duct Systems are now specified and used by all major Distribution Network Operators including: EDF, YEDL/NEDL, United Utilities, Scottish Power, Scottish & Southern Energy, Western Power, NIE & ESB Ireland.

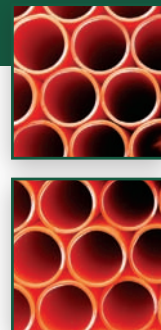
The Features and Benefits these systems bring are as follows:

- The ability to withstand compression forces from carriageway loading at elevated temperatures.
- Ease of installation with integral jointing system, making the product simple to install, therefore ensuring system is installed correctly without fail.
- Ease of cable placement, with low friction inner surface bespoke long radii bends to meet the requirements of the latest generation cables. This reduces whole system costs as longer cabling distances can be achieved, resulting in reduction in expensive joints. Internal chamfer on all spigot ends of ducts ensures no damage during cable placement, which in turn improves cable lifespan.
- Enhanced cable performance through efficient heat dissipation offered by PVC-U duct systems, due to the high compression to wall thickness ratio, compared with alternate systems.
- Comprehensive product range, covering all possible cable requirements and construction techniques.
- Systems are re-useable when cables are replaced or repaired, therefore maximising asset life and reducing further disruptions to the roadways and footways.

Full support from design through to operation and maintenance

Emtelle has a well-earned reputation for offering excellent specification, and site support. This commitment to service without compromise includes full discussion and cooperation from the design stage to cable placement. Our experts will walk the entire route with engineers, carefully quantifying product requirements, checking for areas of technical difficulty. We also provide product training and a step-by-step installation guide for ducts.





PVC-U Interference Fit Socket (IPX4) Duct System

Class 1

■ Class 1 Solid Wall PVC-U Duct System guaranteeing 450N compression performance at operating temperatures up to 75 Degrees C



Duct Interference Socket



Bend



Connector Sleeve

BLACK CLASS 1 88.9mm

Product Code	Description	Radius (MM)	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
5079T	6 m Length Duct	—	828
5537	11.25° Bend	3900	5
5492	11.25° Bend	1500	15
5536	22.5° Bend	3900	5
5118	22.5° Bend	1500	10
5306	Connector sleeve	—	75

BLACK CLASS 1 110mm

Product Code	Description	Radius (MM)	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
3978S	6 m Length Duct	—	540
3986	11.25° Bend	3500	10
5854	11.25° Bend	700	20
3987	22.5° Bend	1750	10
5855	22.5° Bend	700	20
5856	45° Bend	560	15
5886	90° Bend	450	10

BLACK CLASS 1 125mm

Product Code	Description	Radius (MM)	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
5080T	6 m Length Duct	—	408
4736B	11.25° Bend	1200	5
5427	22.5° Bend	1200	10
5621	Connector sleeve	—	25

BLACK CLASS 1 140mm

Product Code	Description	Radius (MM)	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
5255	6.6 m Length Duct	—	350
5535	11.25° Bend	3900	1
5530	22.5° Bend	3900	1
5261	22.5° Bend	1950	1
5264	Connector sleeve	—	5

PVC-U Interference Fit Socket (IPX4) Duct System

BLACK CLASS 1 160mm			
Product Code	Description	Radius (MM)	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
4749	6 m Length Duct	–	234
5482	11.25° Bend	3900	39
5858	11.25° Bend	1200	39
5479	22.5° Bend	3900	39
5859	22.5° Bend	1200	39
5860	45° Bend	560	5
5861	90° Bend	560	5
3748	Connector sleeve	–	15

BLACK CLASS 1 168mm			
Product Code	Description	Radius (MM)	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
5738	6 m Length Duct	–	234
9102	22.5° Bend	3900	25
9426	Connector sleeve	–	15

BLACK CLASS 1 200mm			
Product Code	Description	Radius (MM)	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
5888	6 m Length Duct	–	150
5900	22.5° Bend	3900	25

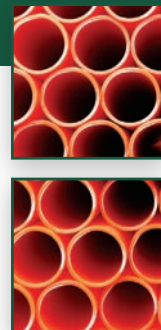
BLACK CLASS 1 250mm			
Product Code	Description	Radius (MM)	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
9674	6 m Length Duct	–	96
9727	3 m Length Duct	–	48
9708	11.25° Bend 4500	4500	1

Class 2

■ Class 2 Solid Wall PVC-U Duct System guaranteeing 450N compression performance at operating temperatures up to 50 Degrees C

BLACK CLASS 2 Duct		
Product Code	Description	Quantity per Pallet Duct (Mtrs.)
5078	53.9mm 6 m Length	2220
5079	88.9mm 6 m Length	828
3772S	96.5mm 6 m Length	690
4748S	110mm 6 m Length	540
5080	125mm 6 m Length	408
4749	160mm 6 m Length	234
5643	168mm 6 m Length	234

For duct and connector sleeves please refer to the Class 1 product range.



PVC-U Ring Seal Socket (IP57) Duct System



- Greater security
- Stops ingress of water into the duct system

Black Class 1 Ring Seal Duct		
Product Code	Description	Quantity per Pallet Duct (Mtrs.)
5331	110mm 6 m Lengths	540
5338	160mm 6 m Lengths	234
5305T	200mm 6 m Lengths	150

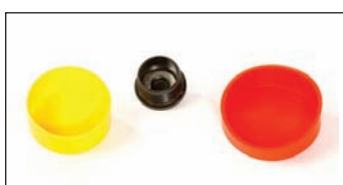


Black Class 1 Ring Seal Bends			
Product Code	Description	Radius (mm)	Quantity per Bag (Item)
5336	110mm 11.25° Bend	3500	10
5180	110mm 22.5° Bend	1750	10
5493	160mm 11.25° Bend	3900	39
5420	160mm 22.5° Bend	3900	39
5343	200mm 11.25° Bend	4800	1
5309	200mm 22.5° Bend	4800	1



Black Class 1 Double Ring Seal Coupler		
Product Code	Description	Quantity per Bag (Item)
5334	110mm	50
5339	160mm	10
5310	200mm	5

Additional Accessories



End Caps

End Cap		
Product Code	Description	Quantity per Bag (Item)
1740	Black 88.9mm	250
1875	Red 96.5mm	250
3850	Red 110mm	100
9232	Grey 125mm	100
9352	Grey 140mm	60
5029	Grey/Yellow 160mm	60
9191	Grey/Yellow 168mm	35



3982 and 3792

Spacers		
Product Code	Description	Quantity per Bag (Item)
3982	110mm	200
3792	160mm	125



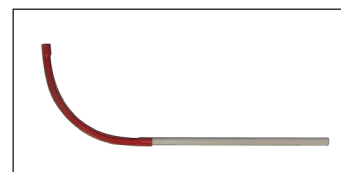
3982 and 3792

Reducers		
Product Code	Description	Quantity per Bag (Item)
9569	125 – 110mm	15
9752	160 – 110mm	15
9671	160 – 125mm	15
5464	160 – 140mm	20
9526	200 – 125mm	20
9577	200 – 168mm	20

United Utilities Product Range

32mm Products (30 OD - 32 ID)

Product Code	Description	UU Code	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
5450	32mm 50m Coil	234966	400
5483	32mm 3m Length Duct	229585	300
5548	32mm 22.5° Bend	229482	50
5534	32mm 45° Bend	229474	50
5484	32mm 90° Bend	229466	50
5581	32mm Double Coupler	229091	100
5077	32mm Hockey Stick Bend	229512	25
5472	32mm White Saddle	229504	100



117mm Products (125 OD - 117 ID)

Product Code	Description	UU Code	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
5333S	117mm 3m Length Over	229520	204
4736U	117mm 11.25° Bend	229540	5
4614U	117mm 22.5° Bend	229545	5
4624U	117mm 45° Bend	229555	5
4615U	117mm 90° Bend	229565	50
5570	117mm Connector Sleeve	229094	25



150mm Products (160 OD - 150 ID)

Product Code	Description	UU Code	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
5303S	150mm 3m Length Over	229590	117
5452U	150mm 11.25° Bend	229490	25
5453U	150mm 22.5° Bend	229550	25
5454U	150mm 45° Bend	229560	25
5455U	150mm 90° Bend	229570	25
5235	150mm Connector Sleeve	229095	15

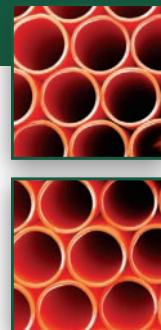


Shallow Depth Burial Duct

Product Code	Description	UU Code	Quantity per Pallet Duct (Mts)
9628	Red 160mm HDPE 6m Duct	229514	120

Standard 117mm and 150mm Bends – 1200mm radius

For additional United Utilities products please refer to Appendix C.



Scottish Power LV Product Range

Product Code	Description	Scottish Power Stock Code	Class	Length	Pack Size (Order Multiple)
5846	BLACK HDPE 38/32MM X 100M COIL	C23783308	Class 2	100m Coils	400m (4 x coils)
5847	BLACK HDPE 58/50MM X 50M COIL	C23780265	Class 2	50m Coils	200m (4 x coils)
5847L	BLACK HDPE 58/50MM X 100M COIL	C23780264	Class 2	100m Coils	400m (4 x coils)
5848	BLACK 110MM 3M C1 ELECTRIC	C23780329	Class 1	3m effective length	270m
5884	BLACK 110MM 3M C2 ELECTRIC	C23780334	Class 2	3m effective length	270m
5849	BLACK 160MM 3M C1 ELECTRIC	C23780330	Class 1	3m effective length	117m
5885	BLACK 160MM 3M C2 ELECTRIC	C23780335	Class 2	3m effective length	117m
5850	BLACK 38MM HOCKEYSTICK BEND	C23780322	Class 2	n/a	10 items
4044	CONN SLEEVE 110MM BLACK	C23780331	n/a	n/a	50 items
3748	CONN SLEEVE 160MM BLACK	C23780332	n/a	n/a	15 items
5854	BLACK 110MM 11.25 C1 700 RAD	C23783325	Class 1	n/a	20 items
5855	BLACK 110MM 22.5 C1 700 RAD	C23783326	Class 1	n/a	20 items
5856	BLACK 110MM 45DEG C1 560 RAD	C23783329	Class 1	n/a	15 items
5886	BLACK 110MM 90DEG C1 450 RAD	C12055561	Class 1	n/a	10 items
5858	BLACK 160MM 11.25 C1 1200 RAD	C23783328	Class 1	n/a	39 items
5859	BLACK 160MM 22.5 C1 1200 RAD	C23783327	Class 1	n/a	39 items
5860	BLACK 160MM 45DEG C1 560MM RAD	C23783330	Class 1	n/a	5 items
5861	BLACK 160MM 90DEG C1 560MM RAD	C23783331	Class 1	n/a	5 items
9862	CABLE GUARD 3M X 25MM	C43850637	n/a	3m	10 items
9494	CABLE GUARD 3M X 40MM	C43850636	n/a	3m	10 items
9495	CABLE GUARD 3M X 55MM	C43850649	n/a	3m	10 items
9496	CABLE GUARD 3M X 80MM	C43850650	n/a	3m	5 items

For additional Scottish Power Products please refer to Appendix D.

PowerProtect+ HDPE Duct Systems

Solid Wall HDPE Duct System – Service Cables

Coiled Solid Wall HDPE duct systems are used within the power market for service cables and specialist applications. Small diameter coils:

- Strong, flexible and impact resistant yet lightweight
- Easy to work with
- Flexible, even at well below zero temperature
- Long life resistance to fatigue
- Resistant to many common liquids and chemicals
- Immune to most corrosion or fungal contamination
- 25mm, 32mm, 37mm, 38mm, 44mm, 50mm, 54mm and 63mm OD duct sizes to meet optimum size requirements for cable placement.
- Coil lengths to suit client requirements (typically 50m, 100m and 150m.)
- Banded and film wrapped for ease of handling.



Black Electrical Coils			
Product Code	Description	Coil Length (Mts)	Quantity per Pack (Mts)
5723S	37/32mm	50	200
5723	37/32mm	100	400
5846	38/32mm	100	400
5075	44/38mm	100	400
5073	54/46mm	50	200
5847	58/50mm	50	200
5847L	58/50mm	100	400

Large Diameter Coils – Trenchless Applications/Directional Drill

Polyethylene pipe systems may provide:

- Quicker installation
- More cost effective solutions
- Easier installation

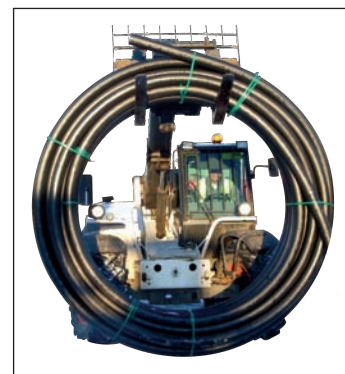
PE itself is light and flexible but maintains its durability. With a comprehensive size range up to 250mm, the main advantage of this duct over PVC is the secure jointing methods. There are two types of jointing methods:

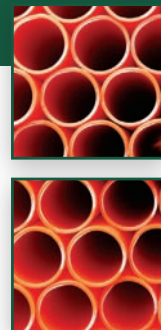
- Butt-fused
- Electrofusion

These methods allow the duct to be jointed securely in a continuous length which can allow new installation methods to be used including moleploughing, direction drilling or no dig (shallow depth).

Black Large Diameter Electrical Coils			
Product Code	Description	SDR (Standard Dimension Ratio)	Quantity per Pack (Mts)
9676	90mm	11	100
9676S	90mm	11	50
9667	110mm	11	100
9667S	110mm	11	50
9678	125mm	11	100
9678S	125mm	11	50
9679	160mm	11	100
9679S	160mm	11	50
9681	180mm	11	100
9681S	180mm	11	50

Black PE Electric Cable Duct				
Product Code	Description	Duct Length (Mts)	SDR	Quantity per Pallet Duct or Bag for Accessories (Mts or Item)
9896	110mm	6	11	228
9896L	110mm	12	11	480
9897	125mm	6	11	204
9897L	125mm	12	11	408
9951	160mm	12	11	200
9909	180mm	6	11	102
9909L	180mm	12	11	204





PowerProtect+ Ancillary Products



Duct Protection and Marking Products

Marker tapes to alert following utility services of the general location of fibre ductwork and HDPE trench tiles to offer token protection from damage from trenching tools.

Electrical Marker Tapes

Can be supplied with bespoke Colour/Printline giving company name and Emergency Freephone Number.

Product Code	Description	Quantity per Bag (Item)
4878	MARKER TAPE/ELECTRICAL CABLE (365m per roll)	1



HDPE Trench Tiles

- Cable tiles are a heavy protection product manufactured from high impact recycled polyethylene sheet and are suitable to withstand damage from plant and hand tools.
- They are also suitable for fibre optic and HV electric cables.
- Cable tiles are fully jointed, laid overlapped and held firm with plastic jointing pegs.
- They are a suitable direct replacement for concrete covers and steel plate.
- These are generally supplied with bespoke Colour/Printline giving company name and their Emergency freephone number.

Product Code	Description	Quantity per Pallet (Item)
5307	1m x 300mm x 12mm ELECTRIC C/TILE	300
5417	1m x 244mm x 12mm ELECTRIC C/TILE	400



Tile Tape

Thick plastic tape which will help to mark and protect buried duct

Product Code	Description	Quantity per Bag (Item)
5307T	150mm x 2.5mm x 40m ELECTRIC TILETAPE	1
5417T	200mm x 2.5mm x 40m ELECTRIC TILETAPE	1



Lubricant

CABLE LUBE 20LT – EMTELLE (Emtelle Code 3647)

Techlube HD Heavy Duty, High Performance, Cable Lubricant, is a clean, bright blue, slow-drying, water-based gel lubricant especially formulated to provide the greatest friction reduction possible in high shear, difficult electrical utility and communication cable placing operations. It will dry slowly to form a thin friction reducing film which retains its slip.

Techlube HD Heavy Duty, High Performance Cable Lubricant presents no threat to users. It is non-irritating to skin during normal use and is biodegradable, presenting no threat to the environment. Techlube HD is compatible with all forms of cable jacket materials and is very easy to use.



Sizing Mandrel

Used with duct brush to "prove" the bores of existing and newly laid ducts for damage/mis-alignment. The mandrel is pulled behind the brush to prevent damage/blockage. Colour coded to ease size identification.

Available for all major duct sizes including 96.5mm, 110mm, 160mm and 200mm.

Standard version is constructed of metal however Nylon versions may be available.

PowerProtect+ Ancillary Products

Duct Brush

A range of cleaning brushes to remove dirt and grit from the main duct prior to mandrel size testing and subsequent winching-in of sub-duct. Brush and mandrel are often pulled in together as the means of proving the duct run.



Available for all major duct sizes including 96.5mm, 110mm, 160mm and 200mm.

Foam Carriers (Also known as Foam Pigs)

Designed to remove dirt and water from all pipe materials.

Normally pushed through the pipe using water or air, but they can be pulled through if required.

Product Code	Suitable for Duct size	Pack Qty	TYPE
9271	88.9mm	1	With Rope eye
9272	96.5mm & 110mm	1	With Rope eye
9273	160mm	1	With Rope eye
9739	42mm	1	With Rope eye
9940	96.5mm	1	Standard
9941	160mm	1	Standard



Available for all major duct sizes.

Blowing Guns

Used to push air through the pipe pushing a foam pig or carrying a rope.

Available for standard duct sizes.



Available for standard duct sizes.

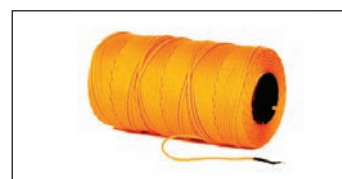
Rope Products

Rope products which can be used for cable pulling

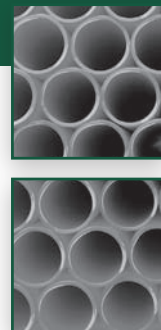
Product Code	Description	Quantity per Roll (Mts)
4563	BLUE POLYPROP 6mm x 500m ROPE	500
13375	8KN ROPE ORANGE (3660 MTS)	3660
13375B	8KN ROPE ORANGE (4150MTS)	4150



4563



13375



Building Products



No. KM72683

EN1401 Underground Drainage

- Emtelle has BSI Kitemark accreditation to the EN1401 standard
- Plain ended and ring seal socket available
- "In – line" socketing enables the manufacture of integral interference fit, or ring seal joints, enabling easy to install and secure jointing for a range of applications to give system security of choice.
- PVC-U bends are manufactured from a solid wall pipe and provide the means to change direction on a drainage system
- Long radius bends are designed to be used in application of underground drainage where the use of moulded shorter radius bends could result in blockages of the drainage system occurring.
- The spigot end of the bends are chamfered to enable ease of insertion into EN1404 pipe/ system fittings



EN1401 Plain Ended Pipe			
Product Code	Description	Pack Quantity (lengths)	Pack Quantity (Mts)
5315	110mm x 3m length	90	270
5317	110mm x 6m length	90	540
5131	160mm x 3m length	39	117
5132	160mm x 6m length	39	234



EN1401 Single Socketed Pipe			
Product Code	Description	Pack Quantity (lengths)	Pack Quantity (Mts)
5316	110mm x 3m length	86	258
5318	110mm x 6m length	90	540
5319	160mm x 3m length	39	117
5320	160mm x 6m length	39	234



EN1401 Single Socketed Long Radius Bends			
Product Code	Description	Pack Quantity (Items)	Radius (mm)
4971	110mm 11.25° Bend	10	3500
4970	110mm 22.5° Bend	10	1750
4969	110mm 45° Bend	10	560
4968	110mm 90° Bend	8	400
4975	160mm 11.25° Bend	10	380
4974	160mm 22.5° Bend	10	380
4973	160mm 45° Bend	5	560
4972	160mm 90° Bend	5	560

General Purpose Ducts

General Purpose Ducts are manufactured as there is still a residual requirement for these products via distributors and end users. Unlike our Telecoms and Power products, these systems are not manufactured in accordance with recognised performance specifications and as such care should be taken as to where these products are used and how they are installed. We recommend these products are not used in the public domain, and if they are to be used in such areas then the ducts should be surrounded with concrete.

Black Imperial GP Duct

Product Code	Description	Quantity per pallet duct (Mts)
3534	54mm (2") x 6m length	2220
3497	89mm (3") x 6m length	828
2732	114mm (4") x 6m length	456
3518	168mm (6") x 6m length	234



Black Imperial GP Bends

Product Code	Description	Quantity per Bag (Item)
3536	54mm (2") 45° Bend	60
3535	54mm (2") 90° Bend	60
3512	89mm (3") 45° Bend	20
3513	89mm (3") 90° Bend	20
3546	114mm (4") 11.25° Bend	20
3545	114mm (4") 22.5° Bend	15
3486	114mm (4") 45° Bend	15
3487	114mm (4") 90° Bend	10
3488	168mm (6") 45° Bend	5
3489	168mm (6") 90° Bend	5



Black Metric GP Duct

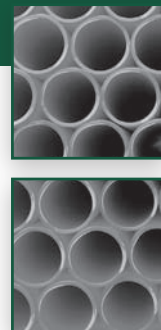
Product Code	Description	Quantity per pallet duct (Mts)
4442	110mm x 6m length	540
4443	160mm x 6m Length	234
5516	200mm x 6m Length	150



Black Metric GP Accessories

Product Code	Description	Quantity per Bag (Item)
5232	110mm 11.25° Bend	10
5231	110mm 22.5° Bend	10
3514	110mm 45° Bend	15
3515	110mm 90° Bend	10
4044	110mm Connector Sleeve (Dk Grey)	50
4428	160mm 22.5° Bend	5
4275	160mm 45° Bend	5
4274	160mm 90° Bend	5
3748	160mm Connector Sleeve	15





General Purpose Ducts



BS 4660 Ring Seal Type Duct

Black BS4660 Ring Seal Type Duct		
Product Code	Description	Quantity per pallet duct (Mts)
4985	110mm x 6m length	540
5003	160mm x 6m length	234



Black BS4660 Ring Seal Bends		
Product Code	Description	Quantity per Bag (Item)
5189	110mm 45° Bend	10
5188	110mm 90° Bend	10
5191	160mm 45° Bend	5
5190	160mm 90° Bend	5



PE Lengths and coils

SDR is an abbreviation for "Standard Dimension Ratio". It is a convenient means for defining the minimum wall thickness for duct. It is equal to the Actual Duct Diameter (not the nominal duct size) divided by the wall thickness.

OD Product	SDR	Lengths (m)	Coils (m)
63mm	11	6	
75mm	11	6	100
90mm	11	6	100
110mm	11	6	100
125mm	11	6	100
160mm	11	6	
180mm	11	6	
200mm	11	6	

OD Product	SDR	Lengths (m)	Coils (m)
63mm	17	6	
75mm	17	6	100
90mm	17	6	100
110mm	17	6	100
125mm	17	6	100
160mm	17	6	
180mm	17	6	
200mm	17	6	



CCTV, Motorway Communications, Traffic Signalling & Street Lighting

Emtelle are developing new innovative products for new market sectors and we are increasingly getting more business in these sectors as specifiers and installers look to utilise the features and benefits of Emtelle's various duct systems over and above the standard products utilised in these applications:

PVC Primary Duct System

- Accredited ISO 9001 Quality Management System, ISO 14001 Environmental Standard, Kitemark EN1401, ISO 18001
- Solid wall PVC-U systems overcome airtight problems and stone impingement associated with twin wall PE ducts
- Comprehensive range of sizes: 20mm – 250mm OD, to meet standard and bespoke requirements.
- Range of wall thickness choices to meet variety of compression strength specified.
- Bespoke print detail to meet client needs.
- Standard Interference Fit / Push fit socket systems & Ring Seal Socket systems.

HDPE

- Strong, flexible and impact resistant yet lightweight
- Size range from 16mm – 250mm
- Flexible & easy to work with, even at well below zero temperature
- Long life resistance to fatigue
- Resistant to many common liquids and chemicals
- Immune to most corrosion or fungal contamination
- Coils or drummed product available
- Extensive range of colours

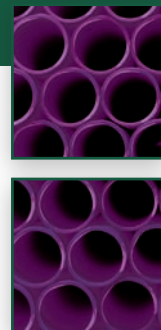
fibreflow™

fibreflow™ networks are versatile and cost effective. Fibres are installed only when needed, and leaving room for many more in the future.

Some of the features and benefits are listed here:

- Lower initial costs
- Elimination of dead fibre. Install fibre only when needed
- Reduced long-term costs
- Lower installation time: Customer can have a fibre link 'the same day'
- Much less splicing. Most routes have no splices at all. So less need for splicing technicians and equipment
- Less manpower. One small van and compact equipment
- Design / Application flexibility
- Futureproof: Fibres can be blown out and replaced with new types.
- The system is modular; connections are push-fit, easy to change, extend or upgrade
- Less digging over the life of the network



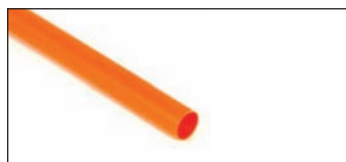


CCTV, Motorway Communications, Traffic Signalling & Street Lighting

Orange PVC-U Street Lighting Duct and Accessories

Orange PVC-U 96.5mm Product Range		
Product Code	Description	Quantity per pallet duct or bag for accessories (Mts or Item)
4547	6m Duct	690
3914	11.25° Bend	20
3607	90° Bend	10
4552	Connector Sleeve	75

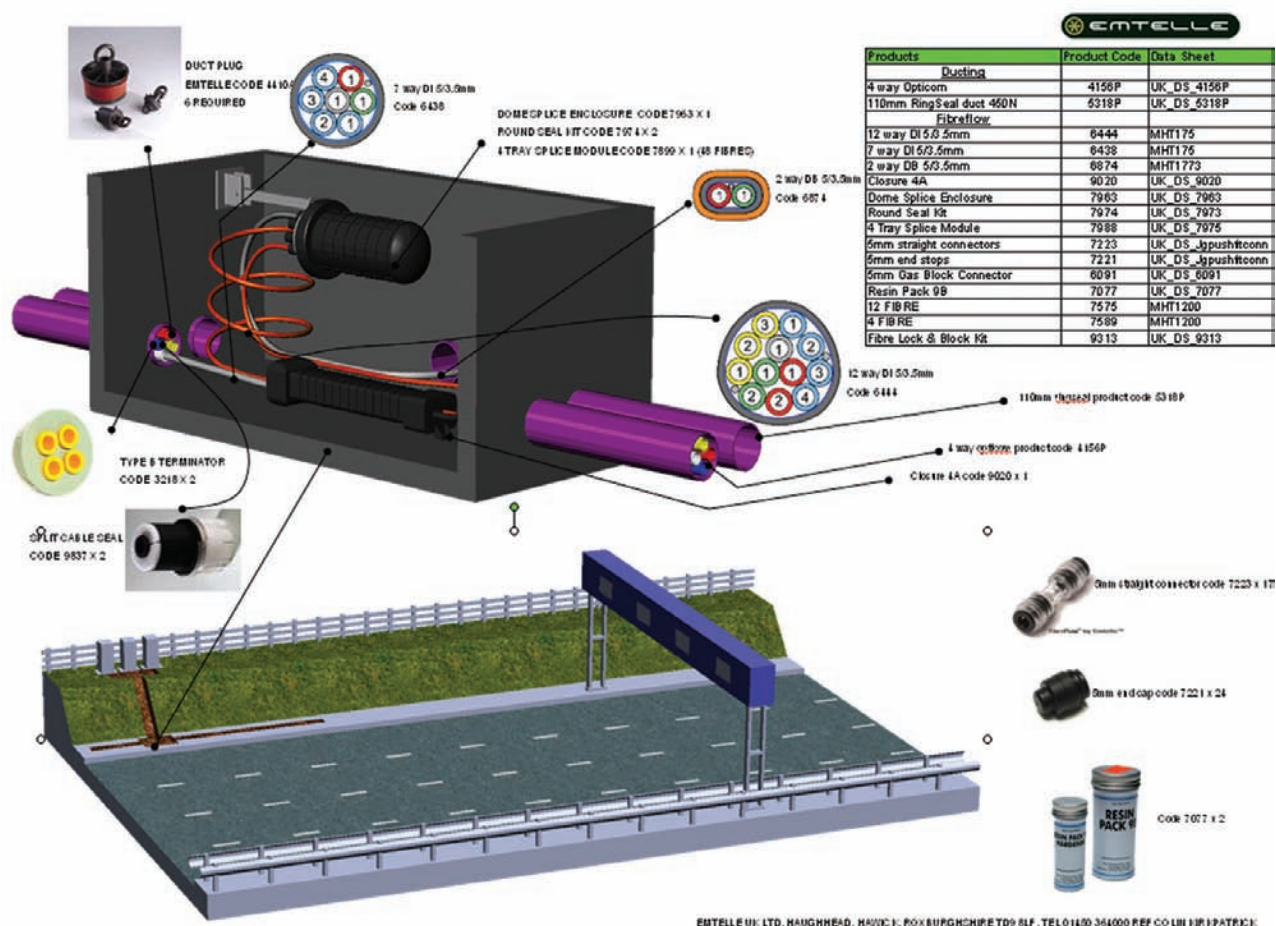
Orange PVC-U 110mm Product Range		
Product Code	Description	Quantity per pallet duct or bag for accessories (Mts or Item)
4462	6m Duct	520
4470	4.4m Duct	352
4476	11.25° Bend	20
4477	22.5° Bend	20
3144	45° Bend	20
3188	90° Bend	10
4478	Connector Sleeve	50



Orange HDPE Coils		
Product Code	Description	Quantity per coil pack (Mts)
5837	44/38mm 100m	400
5802	60/50mm 50m	200

CCTV, Motorway Communications, Traffic Signalling & Street Lighting

Purple Motorway Comms Duct and Accessories



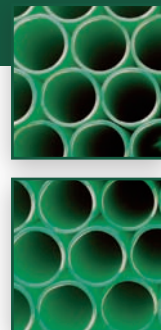
EMTELLE UK LTD, HAUGHHEAD, HAUGHS, PO BOX BURGHCHE RD9 8LF, TEL 01450 364000 REF COLBRI FIF PATRICK

Product Code	Purple Opticom 4-Way	Quantity per pallet duct or bag for accessories (Mts or Item)
4156P	6.6m Length Duct (Red, Blue, Natural and Green)	594
3340P	Flexi Bend	5

Product Code	Purple Ring Seal Duct and Accessories	Quantity per pallet duct or bag for accessories (Mts or Item)
5954	6m Length Duct	540
4970P	22.5° Bend (1750R)	10

fibreflow™

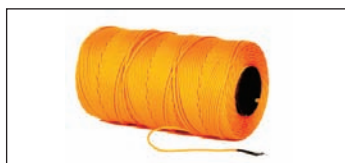
We have a separate catalogue dedicated to our fibreflow range.



Ancillary Products



4563



13375



Rope Products

In most cases, the Civils Contractor has to provide the main duct system proven, brushed, mandrelled and roped ready for future sub-duct/cable winching.

Product Code	Description	Quantity per Roll (Mts)
4563	BLUE POLYPROP 6mm ROPE (500MTS)	500
13375	8KN ROPE ORANGE (3660 MTS)	3660
13375B	8KN ROPE ORANGE (4150MTS)	4150

Expanding Plugs

To keep main duct free of water, dirt and grit between duct-laying and sub-duct/cable placement. A rope eye at the spigot end of the plug keeps ropes secure and reduces box congestion.

- All plastic construction
- Corrosion proof
- Water-tight
- Easy installation and removal
- Reusable

Product Code	Duct ID Range** (mm)	Quantity per Pack (Item)
4410A	24-30	12
4410D	29-38	12
4410C	76-88	12
4410B	87-102	12
4410	100-110	8
9351	148-162	8

** Addition sizes are available on request.

Additional Products are available including:

Triplex Sub-duct Organiser Plugs
Quadplex Sub-duct Organiser Plugs



Sealrad

Sealrad is a flexible metallic laminated self inflating bag designed to seal cable ducts.

- Self Inflating
- No tools required for installation (compressors or compressed air canister)
- No pressure measurements required
- No off cuts of left over product
- Proper functioning is independent from the installation conditions and operator skills
- Complies to the BT Specification LN581 requirements



Product Code	Description	Duct ID (mm)	Pack Qty
5403	EMTELLE SEALRAD 90A DUCT SEAL	60-95	5
5404	EMTELLE SEALRAD 90B DUCT SEAL	60-95	5
5405	EMTELLE SEALRAD 100A DUCT SEAL	75-110	5
5406	EMTELLE SEALRAD 100B DUCT SEAL	75-110	5

** Please refer to product specification sheet to ensure correct size selections. Size is also dependant on the number and configuration of cables to be sealed.

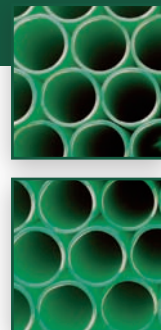
Ancillary Products

Glands – Caulking

Standard type of duct seal over sub-ducts and cables at building entries with the main body encased into wall/sealing plate with body thread exposed to take collars and lock nut. HDPE discs are then cut to accept cable/sub-duct, pushed through. The first discs are pushed back to outside located screw cap nut, the space between the second disc is then filled with duct sealant (Putty) no.16. or 21A the inside discs are then pressed onto the putty by tightening the second screwed cap nut.

Please see Duct section for specific Gland sizes

Product Code	Description	Quantity per Pack
3495	PUTTY COMPOUND 16A	8



Appendix A

Bespoke Telecoms Product

Product Code	Bespoke Green Duct	Quantity per pallet duct (Mts)	Special Print Details
5637	53.9mm 3m Lengths	1110	Verizon
3741	96.5mm 6m Lengths	690	Verizon
3806W	110mm 6.6m Lengths	594	Verizon
3819	110mm 4.4m Lengths	396	Verizon
4599	53.9mm 3m Lengths	1110	NTL
3812	96.5mm 4m Lengths	460	NTL
3945	96.5mm 6m Lengths	690	NTL
3176	96.5mm 6m Lengths	690	Energis
3806L	110mm 6.6m Lengths	594	Easynet
4175	96.5mm 4.4m Lengths	506	Colt
4294	96.5mm 6m Lengths	690	Colt
4294L	96.5mm 6.6m Lengths	594	Colt
4964	96.5mm 6m Lengths	506	Fibrenet
5628	110mm 6m Lengths (4mm)	540	Global Crossing UK
5378s	110mm 6m Lengths	540	Interoute
4161	110mm 6.6m Lengths	594	Scottish & Southern

Product Code	Bespoke Grey Duct	Quantity per pallet duct (Mts)	Special Print Details
3668	96.5mm 6m Length	690	Kingston/Affinity
3680	53.9mm 3m Length	1110	Kingston/Affinity
5615	114mm 6.6m Length	502	GEO

Product Code	Dark Grey THUS Bespoke 110mm Products	Quantity per pallet duct or bag for accessories (Mts or Item)
4088	6.6m Lengths	594
4088S	4.4m Lengths	396
4042	11.25° Bend	20
4043	22.5° Bend	20
4116	90° Bend	10
4044	Connector Sleeve	50
3850	Red End Cap	100

Product Code	Bespoke Grey Duct	Quantity per pallet duct (Mts)	Special Print Details
4166s	110mm 6 m Length	540	Abovenet

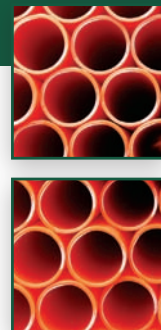
Product Code	Bespoke White Duct	Quantity per pallet duct (Mts)	Special Print Details
5419	54mm 3m Lengths	1100	Vtesse
5376	96.5mm 6m Lengths	690	Vtesse
5838	110mm 6.6m Lemggths	594	H20 Networks

Appendix B

Bespoke Access Chamber Products

Product Code	Description	Clear Opening (mm)	Overall Size (mm)	No. Covers	Badge	Pack Qty
9094	CONC LID FOR FOOTWAY 4 BOX (JUF4)	915 x 445	1007 x 537 x 52	1	EASYNET	16
9057	CONC LID FOR FOOTWAY 6 BOX (JUF6)	1310 x 610	1402 x 702 x 52	2	EASYNET	10
4678	CONC LID FOR FOOTWAY 6 BOX (JUF6)	915 x 445	1007 x 537 x 52	1	C & W	16
4867	CONC LID FOR FOOTWAY 4 BOX (JUF4)	915 x 445	1007 x 537 x 52	1	NTL	16
4825	CONC LID FOR FOOTWAY 6 BOX (JUF6)	1310 x 610	1402 x 702 x 52	2	NTL	10
4776B	CONC LID FOR FOOTWAY 10 BOX (JUF10)	2320 x 740	2412 x 832 x 52	3	NTL	5
9120	CONC LID FOR FOOTWAY 2 BOX (JUF2)	725 x 255	817 x 347 x 52	1	GEO	24
9116	CONC LID FOR FOOTWAY 4 BOX (JUF4)	915 x 445	1007 x 537 x 52	1	GEO	16
9308	CONC LID FOR FOOTWAY 6 BOX (JUF6)	1310 x 610	1402 x 702 x 52	2	VERIZON	10
9258	CONC LID FOR FOOTWAY 6 BOX (JUF6)	1310 x 610	1402 x 702 x 52	2	SSE	10

Product Code	Description	Clear Opening (mm)	Depth (mm)	No. Covers	Badge	Pack Qty
9697	CW1 100 deep THUS Badge	600 x 600	100	1	THUS	10
9698	CW2 100 deep THUS Badge	1200 x 675	100	1	THUS	6
9535	CW2 150 deep THUS Badge	1200 x 675	150	2	THUS	6
9560	CW1150 deep C&W Badge	600 x 600	150	1	C&W	10
9699	CW2100 deep C&W Badge	1200 x 675	100	2	C&W	6
9700	CW3150 deep C&W Badge	1800 x 675	150	2	C&W	3
9327	CW2 150 deep EASYNET Badge	1200 x 675	150	2	EASYNET	6



Appendix C

United Utilities Additional Products

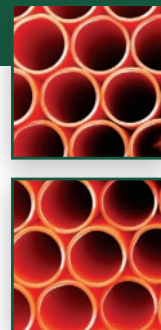
Product Code	Additional Red Duct and Bends	UU Code	PackQty
5483XS	32mm 2m Length Duct	229586	200
5333XS	117mm 2m Length Duct	229521	136
5333	117mm 6m Length Duct	365334	408
5303XS	150mm 2m Length Duct	229591	78
5303	150mm 6.6m Length Duct	365335	257
9697U	Red 125mm 50m Coil	229575	50
5567U	150mm 11.25° Bend (560R)	229092	5
5482U	150mm 11.25° Bend (3900R)	229515	39
5568U	150mm 22.5° Bend (560R)	229093	5
5479U	150mm 22.5° Bend (3900R)	229516	39
5988U	117mm 90° Bend (350R)	229517	5
5989U	150mm 90° Bend (750R)	229518	5

Product Code	Other UU Products (none stock items)	UU Code	PackQty
5524	Red 50/40mm 50m Coil	229574	50
5550	Red 63/52mm 50m Coil	229580	50
5456	117mm Duct Trefoil Clamp	229595	100
5457	150mm Duct Trefoil Clamp	229600	100
5459	25mm Black 3m length	671983	30
TBC	25mm Black Couper	229525	TBC
TBC	25mm Black Saddle	229530	TBC
5565	Kopex Conduit 25mm	229096	30
5564	Kopex Gland & Lock Nut Kit 25mm	229097	1

Appendix D

Scottish Power LV Additional Products

Product Code	Description	Scottish Power Stock Code	Class	Length	Pack Size (Order Multiple)
5853	DOUBLE COUPLER 32MM BLACK	C23780321	n/a	n/a	50 items
9710 (5862)	BEND 90 DEG 50MM ID	C23780266	Class 1	n/a	5 items
9676	90MM PE100 SDR11 X 100M BLACK	C23783320	Class 1	100m Coils	100m
9676S	90MM PE100 SDR11 X 50M BLACK	C23783333	Class 1	50m Coils	50m
9667	110MM PE100 SDR11 X 100M BLACK	C23783324	Class 1	100m Coils	100m
9667S	110MM PE100 SDR11 X 50M BLACK	C23783334	Class 1	50m Coils	50m
9678	125MM HDPE SDR11 X 100M BLK	C23783323	Class 1	100m Coils	100m
9678S	125MM HDPE SDR11 X 50M BLACK	C23783335	Class 1	50m Coils	50m
9679	160MM HDPE SDR11 X 100M BLK	C23783322	Class 1	100m Coils	100m
9679S	160MM HDPE SDR11 X 50M BLACK	C23783336	Class 1	50m Coils	50m
9680	200MM HDPE SDR11 X 100M BLK	C23783332	Class 1	100m Coils	100m
9680S	200MM HDPE SDR11 X 50 BLACK	C23783338	Class 1	50m Coils	50m
9681	180MM HDPE SDR11 X 100M BLK	C23783321	Class 1	100m Coils	100m
9681S	180MM HDPE SDR11 X 50M BLACK	C23783337	Class 1	50m Coils	50m



Terms and conditions

Emtelle UK Limited Conditions Of Sale Of Goods

1. INTERPRETATION

1.1 In these terms and conditions the following words have the following meanings:

"Buyer" the person(s) or company whose order for the Goods is accepted by the Company;

"Company" Emtelle UK Limited of Haughhead, Hawick, Scotland, TD9 8LF;

"Contract" any contract between the Company and the Buyer for the sale and purchase of the Goods;

"Goods" any goods which the Company is to supply to the Buyer (including any of them or any part of them);

"Force Majeure" means all causes beyond the reasonable control of a party to this Agreement including, without limitation, acts of god, war, fire, industrial disputes, flood, tempest, national emergencies and the difficulty in obtaining materials except at unreasonably enhanced prices due to any of the foregoing reasons;

"Intellectual Property Rights" means patents, trade marks, service marks, copyright, design rights and moral rights together with any or all goodwill relating or attached thereto;

1.2 The headings in these terms and conditions are for convenience only and shall not affect their interpretation.

2. FORMATION AND INCORPORATION

2.1 Subject to any variation under conditions 2.4, the Contract will be on these terms and conditions set out below to the exclusion of all other terms and conditions (including any terms or conditions which the Buyer purports to apply under any purchase order, confirmation of order or similar document.)

2.2 Each order for Goods by the Buyer from the Company shall be deemed to be an offer by the Buyer to purchase Goods subject to these terms and conditions.

2.3 No terms or conditions endorsed upon, delivered with or contained in the Buyer's purchase order, specification or similar document will form part of this Contract simply as a result of a reference to such document being referred to in this Contract.

2.4 Any variation to these terms and conditions and any

representations about the Goods shall have no effect unless expressly agreed in writing and signed by an authorised signatory of the Company.

2.5 Acceptance of delivery of the Goods shall be deemed to be conclusive evidence of the Buyer's acceptance of these terms and conditions.

2.6 The Buyer must ensure that the terms of its order and any applicable specification are complete and accurate.

2.7 Any quotation is given on the basis that no contract will come into existence until the Company despatches an acknowledgment of order to the Buyer. Any quotation is valid for a period of 30 days from its date provided the Company has not previously withdrawn it.

2.8 The Company accepts orders subject to the absolute right to cancel and rescind contracts in cases where the Buyer or the terms stated are not acceptable to the Company's insurers or, where applicable, to the Export Credit Guarantee Department or to any other Governmental or other body guaranteeing overseas contracts.

3. DESCRIPTION

3.1 The description of the Goods shall be as set out in the Company's quotation.

3.2 All drawings, descriptive matter, specifications and advertising issued by the Company or the manufacturer of the Goods and any descriptions or illustrations contained in the Company's or manufacturer's catalogues or brochures are issued or published for the sole purpose of giving an approximate idea of the Goods described in them. They will not form part of the Contract.

3.3 The Company may make any changes to the specification, design, materials or finishes of the Goods which are required to conform with any applicable safety or other statutory requirements.

4. DELIVERY

4.1 If the quoted price does not include carriage, delivery will take place at the Company's place of business.

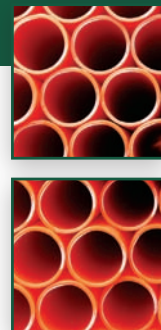
4.2 The Buyer will take delivery of the Goods within 7 days of the Company giving it notice that the Goods are ready for delivery.

4.3 If the quoted price includes carriage, delivery will be deemed to take place at the point of entry to the Buyer's works or site specified in the Contract and the Goods shall be delivered by such means as the Company thinks fit unless the Buyer has specified in its order the details of the contract with a carrier which it reasonably requires, having regard to the nature of the Goods and the other circumstances of the case.

4.4 The carrier shall be deemed to be the Buyer's agent except for the purposes of sections 44, 45 and 46 of the Sale of Goods Act 1979.

Terms and conditions

- 4.5 Delivery of the Goods shall be accepted at any time of day.
- 4.6 Any dates specified by the Company for delivery of the Goods are approximate only and may not be made of the essence by notice. If no dates are so specified, delivery will be within a reasonable time.
- 4.7 Subject to the other provisions of these terms and conditions the Company will not be liable for any loss (including loss of profit), costs, damages, charges or expenses arising directly or indirectly out of delay or failure to deliver the Goods (even if caused by the Company's negligence).
- 4.8 The Buyer must accept delivery of the Goods and pay for them in full unless the Buyer shall have served notice on the Company requesting delivery and shall not have received the Goods within four weeks thereafter in which event the Buyer may cancel this Agreement to the extent it relates to the Goods which were subject to such delivery without further liability for the Goods.
- 4.9 For orders of less than £1000 (ex VAT) the Company reserves the right to charge carriage at the rate charged by the haulier to the Company.
- 4.10 The Buyer will be responsible for loading and offloading and will, unless otherwise agreed, provide at its expense at the delivery point adequate and appropriate equipment and manual labour for off-loading or loading the Goods.
- 4.11 The Buyer will indemnify the Company against any liability and expense (whether arising under statute or common law) caused by the Buyer's failure to provide appropriate equipment and manual labour for off-loading or loading (whether or not the off-loading or loading is supervised by or on behalf of the Buyer) for:
- 4.11.1 any personal injury to or death of any of the Company's employees, agents or sub-contractors or any third party; and
- 4.11.2 any damage to or loss of any property of the Company, its employees, agents or sub-contractors or any third party.
- 4.12 The Company may deliver to the Buyer Goods up to 5% more or 5% less than the quantity ordered. The Buyer shall accept delivery of Goods within such limits without objection but invoices shall be adjusted to actual quantities.
- 4.13 Where the quoted price includes carriage the Company will not be liable for loss or damage in transit unless notice of such loss or damage is given to the carriers and to the Company:-
- 4.13.1 in the case of extrusions at the time of delivery, by endorsement on the delivery documentation;
- 4.13.2 in all other cases by written notification to the Company within 3 days of delivery and by endorsement on the delivery documentation.
- 5. NON-DELIVERY**
- 5.1 The quantity of any consignment of Goods as recorded by the Company upon despatch from the Company's place of business shall be conclusive evidence of the quantity received by the Buyer on delivery unless the Buyer can provide conclusive evidence proving the contrary.
- 5.2 The Company shall not be liable for any non-delivery of Goods (even if caused by the Company's negligence) unless written notice is given to the carrier and the Company within 3 days of the date when the Goods would in the ordinary course of events have been received.
- 5.3 Any liability of the Company for the non-delivery of any one order of Goods shall be limited to replacing the Goods for that order within a reasonable time or issuing a credit note at the pro rata contract rate against any invoice raised for such Goods.
- 6. PACKING**
- All pallets and returnable packaging and containers will remain the property of the Company at all times. It is the Buyer's responsibility to return all packing and containers to the Company and should such packing and containers not be returned within the period specified in the Company's quotation, in good condition and carriage paid, a charge shall be made in full for the loss of such packing and containers.
- 7. STORAGE**
- 7.1 If the Buyer fails to take delivery of any of the Goods when they are ready for delivery or to provide any instructions, documents, licences or authorisations required to enable the Goods to be delivered on time (except because of the Company's fault) risk in the Goods will pass to the Buyer (including, without limitation, for loss or damage caused by the Company's negligence), the Goods will be deemed to have been delivered and (without prejudice to its other rights) the Company may:
- 7.1.1 store or arrange for the storage of the Goods until actual delivery or sale and charge the Buyer for all related costs and expenses (including, without limitation, storage and insurance); and/or
- 7.1.2 following reasonable notice to the Buyer sell any of the Goods at the best price reasonably obtainable in the circumstances and charge the Buyer for any shortfall below the price under the Contract.
- 7.2 The Company is not responsible for demurrage charges or additional costs resulting from delay in unloading.
- 8. RISK/OWNERSHIP**
- 8.1 Risk of damage to or loss of Goods shall pass to the Buyer upon delivery.
- 8.2 Notwithstanding delivery and the passing of risk, and solely



Terms and conditions

for the purposes of securing payment of all monies due or to become due to the Company by the Buyer on any account, ownership of the Goods shall not pass to the Buyer until the Company has received in full (in cash or cleared funds) all sums due to it in respect of:

- 8.2.1 the Goods; and
- 8.2.2 all other sums which are or which become due to the Company from the Buyer on any account.
- 8.3 Until ownership of the Goods has passed to the Buyer, the Buyer must:
 - 8.3.1 hold the Goods on a fiduciary basis as the Company's bailee;
 - 8.3.2 store the Goods (at no cost to the Company) separately from all other goods of the Buyer or any third party in such a way that they remain readily identifiable as the Company's property;
- 8.4 The Company shall be entitled to retake possession of any Goods for which the price shall not have been paid in full when due and for that purpose the Company is authorised to enter into any premises of the Buyer or any third party where the Goods are or may be stored and repossess the Goods.
- 8.5 The Company may in respect of all unpaid debts due from the Buyer under this or any other contract have a general lien on all Goods and property of the Buyer in the Company's possession (although such Goods or some of them may have been paid for) and shall after the expiration of twenty eight days written notice to the Buyer be entitled to dispose of such Goods and property as it deems fit and apply the proceeds towards such debts, and remaining sums shall be held on trust.

9. PRICE AND PAYMENT

- 9.1 The price for the Goods shall be the Company's quoted price which shall be binding upon the Company only if the Buyer accepts the Company's quotation within 30 days after which time it may be altered by the Company without notice.
- 9.2 The Company may increase the price of the Goods to reflect any increase in the cost of manufacture or distribution of the Goods which is due to any factor beyond the reasonable control of the Company; this includes (without limitation) foreign exchange fluctuation, currency regulation, alteration of duties and taxes, increase in cost of labour, materials and other manufacturing costs and transport costs, changes in rates of insurance, alterations in duties or import variations, or by reason of any cause beyond the control of the Company
- 9.3 The price for the Goods is exclusive of any value added tax or any other applicable tax which the Buyer shall pay in addition when it is due to pay for the Goods unless this is specifically shown.

9.4 All payments shall be made to the Company in the United Kingdom in the currency stipulated in the Company's quotation to the Buyer.

9.5 Unless otherwise stated, payment terms are "net monthly account", which is to be interpreted as "payment to be made before the end of the calendar month following the calendar month during which the Goods were invoiced". Time of payment shall be of the essence. No payment shall be deemed to have been received until the Company has received cleared funds.

9.6 If the Buyer's account is overdue for payment, the Company reserves the right to withhold or suspend deliveries under this Contract or any other Contract with the same Buyer. Any such withholding or suspension shall not give rise to any claim whatsoever by the Buyer and shall be without prejudice to the Company's right to recover any amount due from the Buyer and to the exercise of any of its rights by the Company.

9.7 If the Buyer's account is overdue for payment, the Company reserves the right to charge interest at 4% per annum over the UK Base Rate of HSBC plc for the time being in force on the amount overdue.

9.8 The right of the Buyer to set off the value of any shortage, defective Goods or Goods not otherwise conforming to the Contract shall be restricted to the specific invoice for the Goods in question and shall not apply to previous or future accounts.

10. WARRANTY

10.1 In the event of any Goods supplied by the Company and not being of its own manufacture being proved to be defective or failing in service, the Buyer shall be entitled only to, and limited to, such restitution as the Company actually receives from the manufacturer and/or supplier to the Company.

10.2 The Company warrants that (subject to the other provisions of these terms and conditions) upon delivery the Goods are, and for a period of 12 months from the date of delivery will be, of satisfactory quality under the Sale of Goods Act 1994 and are fit for the normal purpose for which they have been designed and, where applicable conform to the relevant British Standard.

10.3 The Company shall not be liable for a breach of the warranty in condition 10.2 unless:

10.3.1 the Buyer gives written notice of the defect to the Company and, if the defect is as a result of damage in transit, to the carrier within 14 days of:

10.3.1.1 the date of delivery (where the defect would be apparent to the Buyer upon a reasonable inspection); or

10.3.1.2 the date when the Buyer knew or ought reasonably to have known of the defect (where the defect would not be apparent to the Buyer upon a reasonable inspection); and

Terms and conditions

- 10.3.2 the Company is given a reasonable opportunity after receiving the notice of examining such Goods and the Buyer (if asked to do so by the Company) returns such Goods to the Company for the examination to take place there.
- 10.4 The Company shall not be liable for a breach of the warranty in condition 10.2 if:
- 10.4.1 the defect arises because the Buyer failed to follow the Company's oral or written instructions as to the storage, installation, commissioning, use or maintenance of the Goods or (if there are none) good trade practice; or
- 10.4.2 the Buyer alters or repairs such Goods without the written consent of the Company; or
- 10.4.3 the defect in such Goods arises from any design defect in any drawing, design or specification supplied or approved by the Buyer.
- 10.5 If the Buyer makes a valid claim against the Company based on a defect in the quality of the Goods, the Company shall at its option repair or supply replacement Goods (or the defective part) or refund the price of such Goods at the pro-rata contract rate.
- 10.6 If the Company complies with condition 10.5 it shall have no further liability for breach of the warranty in condition 10.2 in respect of the quality of such Goods.
- 10.7 Any defective Goods will belong to the Company and any Goods which are repaired or which are re-supplied will be warranted on these terms and conditions for the unexpired portion of the 12 month period.

11. LIMITATION OF LIABILITY

- 11.1 The following provisions set out the entire liability of the Company (including any liability for the acts or omissions of its employees, agents and sub-contractors) to the Buyer in respect of:
- 11.1.1 any breach of these terms and conditions; and
- 11.1.2 any representation, statement or tortious act or omission including negligence arising under or in connection with the Contract;
- 11.2 All warranties, conditions and other terms implied by statute or common law (save for the conditions implied by section 12 of the Sale of Goods Act 1979) are excluded from the Contract.
- 11.3 Nothing in these terms and conditions excludes or limits the liability of the Company for death or personal injury caused by the Company's negligence or fraudulent misrepresentation.

THE BUYER'S ATTENTION IS PARTICULARLY DRAWN TO THE PROVISIONS OF CONDITIONS 11.4 AND 11.5

- 11.4 Subject to conditions 11.2 and 11.3:
- 11.4.1 notwithstanding the provisions of any other terms and conditions herein, the Company's total liability in contract, tort (including negligence or breach of statutory duty),

misrepresentation, restitution or otherwise, arising in connection with the performance or contemplated performance of this contract shall be limited in amount to the amount of the price of the Goods; and the parties agree that this condition is reasonable and that the contract price is based on the level, exclusions and limits of liability in this condition 11.

- 11.4.2 the Company shall not be liable to the Buyer for:

- (I) loss of profit; or
- (II) loss of business; or
- (III) business interruption; or
- (IV) depletion of goodwill and/or similar losses; or
- (V) loss of anticipated savings;

in each case whether direct, indirect or consequential, or for any claims for consequential compensation whatsoever (howsoever caused) which arise out of or in connection with this Contract, in each of the above cases whether or not caused by the negligence of the Company, its employees, agents or sub-contractors.

- 11.5 The Buyer shall indemnify the Company against all liability, actions, proceedings, costs, claims, damages or demands in any way connected with this contract brought or threatened to be brought against the Company by any third party except to the extent the Company is liable to the Buyer in accordance with these terms and conditions.

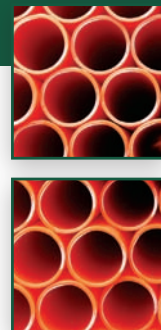
- 11.6 The Buyer shall indemnify the Company against all damages, penalties, costs and expenses to which the Company may become liable through any work done in accordance with specifications, drawings or special requirements of the Buyer which may involve an infringement or alleged infringement of any Intellectual Property Rights of a third party or may cause any actionable damage or loss to any third party.

12. PERFORMANCE OF CONTRACT

- 12.1 The Company may deliver the Goods by installments and each installment shall be deemed to be sold under a separate contract, and no failure of or delay in delivery of any installment nor any defect in the contents thereof shall entitle the Buyer to treat the contract as repudiated with regard to any remaining installments.
- 12.2 If subsequent to any contract of sale which is subject to these conditions a contract of sale is made with the same Buyer without express reference to these conditions, such contract, howsoever made, shall be deemed to be subject to these conditions.

13. TECHNICAL ADVICE AND INFORMATION

- 13.1 The Company may at the request of the Buyer, without being under any obligation to do so, furnish technical advice



Terms and conditions

concerning the use of the Goods and such assistance will be given to the best of the Company's ability but this shall be on the express understanding that any such advice or assistance is given and accepted at the Buyer's risk and the Company shall not be liable for any loss, damage or claims arising therefrom.

13.2 No liability will be accepted for work carried out or material supplied to the Buyer's own drawings, design or specification.

13.3 The submission of a quotation or acceptance of an order by the Company in no way implies any responsibility on its part for any bye law, planning or other approval, which may be required by the Buyer.

14. FORCE MAJEURE

Deliveries may be partially or totally suspended by either party during any period in which it is prevented from manufacturing, delivering or taking delivery of the Goods through any event of Force Majeure and if such party notifies the existence of such Force Majeure to the other party in writing. If, because of such Force Majeure, the Company is unable to supply the total requirement of the Goods the Company may allocate its available supply among all of its customers, including those not under contract, as the Company thinks fit. Deliveries so suspended for three months may thereafter during such suspension be cancelled without liability but the Contract between the parties shall otherwise remain unaffected.

15. PATENTS AND TRADEMARKS

No representation warranty or indemnity is given by the Company that the Goods do not infringe any Intellectual Property Rights of a third party.

16. TERMINATION

16.1 The Contract will terminate immediately upon service of a written notice of termination by the Company on the Buyer on the happening of any one or more of the following events; the Buyer has a bankruptcy order made against him or makes an arrangement or composition with his creditors or otherwise takes the benefit of any Act for the time being in force for the relief of insolvent debtors, or (being a body corporate) convenes a meeting of creditors (whether formal or informal) or enters into liquidation (whether voluntary or compulsory), except a solvent voluntary liquidation for the purpose only of reconstruction or amalgamation, or has a receiver, manager, administrator or administrative receiver appointed of its undertaking or any part thereof, or a resolution is passed or a petition presented to any court for the winding-up of the Buyer or for the granting of an administration order in respect of the Buyer or any proceedings are commenced relating to the

insolvency or possible insolvency of the Buyer or the Buyer suffers or allows any execution whether legal or equitable to be levied on his/its property or obtained against him/it, or fails to observe or perform any of his/its obligations or duties under the Contract or any other contract between the Company and the Buyer or is unable to pay its debts within the meaning of section 123 of the Insolvency Act 1986 or the Buyer ceases to trade.

16.2 The Company's rights contained in condition 8 (but not the Buyer's rights) shall continue beyond the discharge of the Buyer's and the Company's primary obligations under the Contract consequent upon its termination.

16.3 The termination of the Contract howsoever arising shall be without prejudice to the rights and duties of either the Buyer or the Company accrued prior to termination.

17. GENERAL

17.1 Time for performance of all obligations of the Buyer is of the essence.

17.2 Each right or remedy of the Company under this Contract is without prejudice to any other right or remedy of the Company whether under this Contract or not.

17.3 Any provision of this Contract which is held by a competent authority to be invalid, void, voidable, unenforceable or unreasonable (in whole or in part) shall to the extent of such invalidity, voidness, voidability, unenforceability or unreasonableness be deemed severable and the other provisions of this Contract and the remainder of such provision shall not be affected.

17.4 Failure by the Company to enforce or partially enforce any provision of this contract will not be construed as a waiver of any of its rights under this Contract.

17.5 The Company may assign, license or sub-contract all or any part of its rights or obligations under this contract without the Buyer's consent.

17.6 This Contract is personal to the Buyer who may not assign, license or sub-contract all or any of its rights or obligations under this Contract without the Company's prior written consent.

17.7 The parties to this Agreement do not intend that any of its terms will be enforceable by virtue of the Contracts (Rights of Third Parties) Act 1999 by any person not a party to it.

17.8 Any notice required or permitted to be given by either party to the other under these conditions shall be in writing addressed to that other party at its registered office or principal place of business or such other address as may at the relevant time have been notified pursuant to this provision to the party giving the notice.

17.9 The formation, construction, performance, validity and all aspects of this Contract are governed by English Law and the parties submit to the exclusive jurisdiction of the English Courts.

Company offices and UK Locations

Emtelle currently has offices in Australia, Asia and Europe (with its headquarters in the UK).



Headquarters

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INNOVATION AND FLEXIBILITY

At Emtelle we strive to improve our products every day and therefore strongly suggest that all new orders and specifications be confirmed by your Emtelle representative. The current specifications may be different from those listed in our latest catalogues, which are limited by publication date. For the latest specifications please visit our website at www.emtelle.com or contact your Emtelle representative.

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