



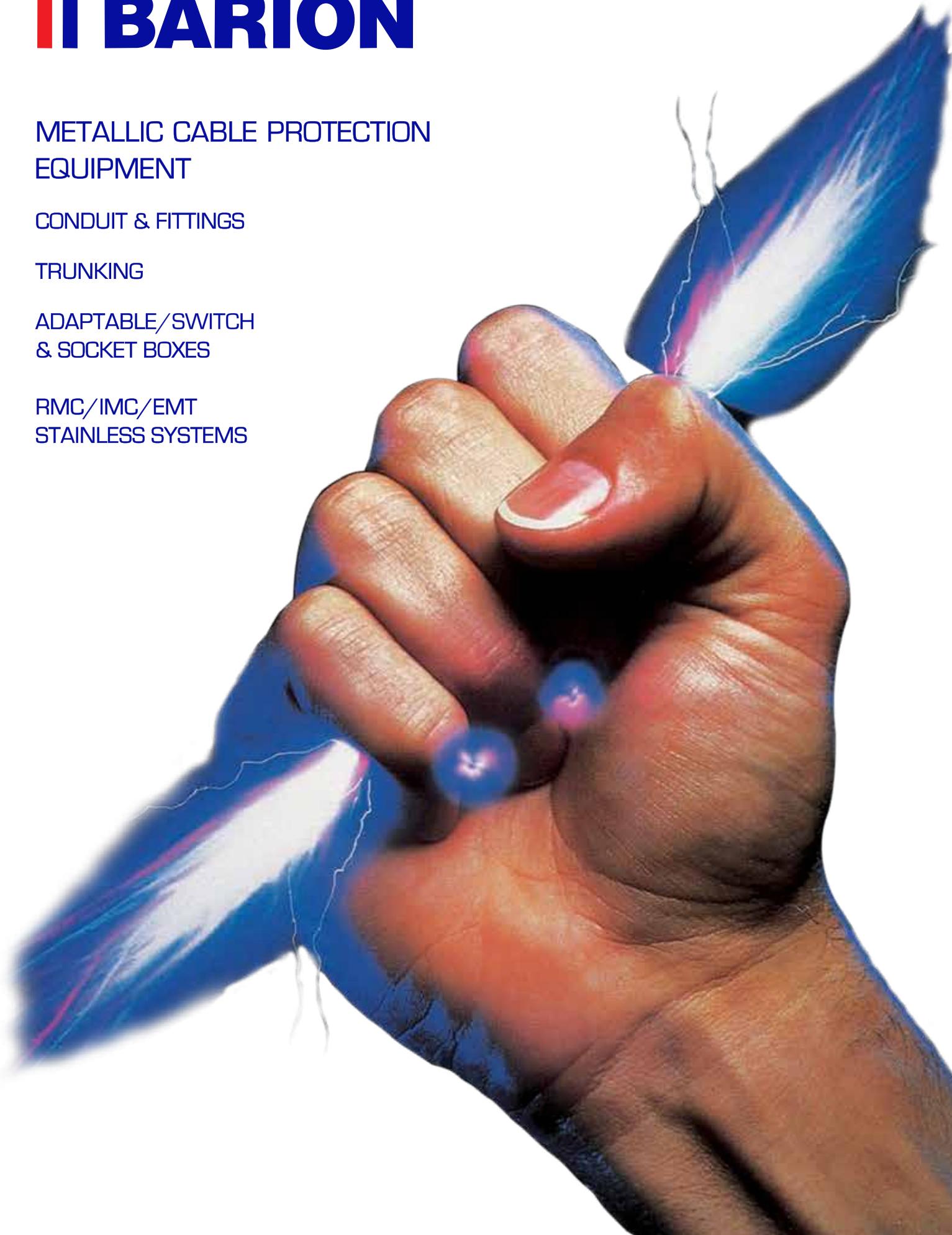
METALLIC CABLE PROTECTION
EQUIPMENT

CONDUIT & FITTINGS

TRUNKING

ADAPTABLE/SWITCH
& SOCKET BOXES

RMC/IMC/EMT
STAINLESS SYSTEMS



THE COMPANY

Barton Engineering produce and supply the premium quality Barton brand of UK manufactured hot dipped galvanised steel conduit, all main associated electrical cable management systems and a wide range of accessories and fittings.

Barton conduit is produced at its own largescale, modern integrated tube rolling mill in Oldbury, which is located in the industrial West Midlands region of the UK.

Barton products are renowned for their high quality, competitive pricing and worldwide exports.

In 2015, Liberty House Group acquired the business and assets, including all worldwide IPR and trademarks of Barton and today Barton Engineering is an operating division of Liberty Precision Tubes, part of Liberty Tubular Solutions.

Liberty House Group is an international business, specialising in metals trading, manufacture and distribution of steel and advanced engineering products. Operating from four strategically positioned financial hubs in London, Dubai, Singapore and Hong Kong, the Group has sites in Europe, Africa, the Far and Middle East, Australia and North America.

In the Middle East, the entire Barton range is exclusively available through Liberty Building Solutions FZE, who operates a regional distribution centre at Jebel Ali Free Zone South, UAE.

THE QUALITY

The premium quality products listed in this brochure are either manufactured by Barton Engineering under a certified and independently audited ISO 9001 Quality Management System at Liberty Precision Tubes, or are manufactured by our approved suppliers under a certified ISO 9001 system or have their quality assured to the same level rigorous inspection processes at Barton Engineering.

The ISO 9001 Quality Management System includes a complete set of working practices, disciplines and procedures implemented at each stage of the manufacturing programme from raw material receipt to final pre delivery inspection.

As a result, all Barton products perform to the highest quality and safety standards.

THE SERVICE

Barton provide a highly efficient customer focused operation, with fully trained specialist sales personnel available to support all clients at all times.

STANDARDS

Barton products are generally manufactured in accordance with the relevant British Standards. Details of particular standards are given below:

Product	British and European (Euro Norme) Standards
Rigid Steel Conduit	BS 4568 part 1 BS EN 50086-1:1994 BS EN 50086-2:1996 BS 31 BS EN 61386 part 21
Conduit Fittings & Accessories	BS EN 50086-1:1994 BS EN 50086-2:1996 BS 31
Adaptable Boxes	BS 4568 part 2
Flexible Conduit	BS EN 50086-2:1996 BS EN 61386 part 23
Switch and Socket Boxes	BS 4662
Trunking	BS 4678

Barton Engineering operations are subject to the Liberty Precision Tubes continuing assessment programme by BSI Assurance UK which confirm compliance with ISO 9001:2008 certificate no. F5650604



About Liberty House Group



Liberty House Group is an international business, specialising in metals trading as well as the manufacture and distribution of steel and advanced engineering products. Operating from four strategically positioned financial hubs in London, Dubai, Singapore and Hong Kong, the Group has sites in Europe, Africa, the Far and Middle East, Australia and North America. With a network of offices spread across 30 countries around the world, its current turnover is approximately \$4.3 billion and it employs circa 3,000 people globally.

Liberty House Group has two main operating arms – Liberty Commodities and Liberty Industries.

Liberty Commodities (LCG), part of the Liberty House Group, is a comprehensive product and services provider to the global steel and metal industries. The business delivers innovative trade and supply chain solutions, including financing options to its clients through a global network developed over a quarter of a century.

Liberty Industries Group (LIG) is an integrated steel manufacturer and distributor, with processes ranging from the production of liquid steel to value added advanced engineering products. Divided further into Liberty Steel Group (LSG) and Liberty Engineering Group (LEG), the division has sites in the United Kingdom, Africa and India, and employs circa 1,500 people. Its global steel

production capacity exceeds 4 million tonnes per annum and its large and diverse product portfolio includes:

- Steel products such as hot rolled steel coil, steel long products, precision steel tube (both ERW and cold rolled), steel precision strip and steel wire;
- Steel distribution;
- Tubular solutions for a range of industries, such as automotive, agriculture, yellow goods, construction, and many others;
- Engineered products for the automotive industry, including OEMs, Tier 1,2 & 3 suppliers;
- High performance solutions for the motorsport, aerospace and defence industries; and others.

	Pages
CONDUIT – STEEL	4 – 5
CONDUIT FITTINGS AND ACCESSORIES	6 – 15
ADAPTABLE BOXES	16
CONDUIT – FLEXIBLE	17
SWITCH AND SOCKET BOXES	18 – 19
TRUNKING	20 – 26
NOTES	28
NUMERICAL INDEX	29
HEALTH AND SAFETY AT WORK ACT	31
CONDITIONS OF TRADING	32

ALPHABETICAL INDEX

Description	Page
ADAPTORS Flexible Metallic Conduit, Brass	17
Imperial/Metric	9
Metric/Imperial	9
BENDS Inspection.....	12
Normal, Internal	12
BOXES Adaptable, Pressed Steel.....	16
Ceiling Rose, Shallow	8
Circular, Large	7
Circular, Small	6
Circular, Small, Special Deep	8
Circular, Small Extension	8
Looping In	9
BUSHES Brass, Male and Female.....	13
CLIPS Earthing, Copper.....	12
CONDUIT Flexible, Metallic.....	17
Steel	4 – 5
COUPLINGS Earthing.....	11
Flanged	11
Inspection.....	11
Solid	11
COVERS Ball and Socket, Earthed, Small.....	10
Ball and Socket, Earthed, Large	11
Dome, Female, Small.....	10
Dome, Female, Large	11
Hook – Dome, Small.....	10
Heavy, Small, Malleable	10
Heavy, Large, Malleable	10
Heavy, Small, Steel	10
Heavy, Large, Steel	10
Light, Small, Steel	10
Light, Large, Steel.....	10
CRAMPETS	14
DIES	5
DRAW-IN	
TAPE Steel	5
ELBOWS Channel inspection	12
Solid	12
GASKETS Rubber	15

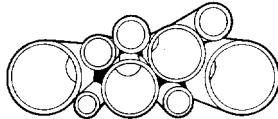
Description	Page
GLANDS Brass	13
GUIDES	5
HOOKS Female	11
Male	11
LOCKNUTS Circular, Milled edge.....	13
Heavy.....	13
Light	13
LOOPS Female	11
Male	11
NIPPLES Normal	11
300mm Long.....	11
ORDERING	
PROCEDURES	28
PLUGS Hexagon Head, Malleable.....	13
Slotted Head, Brass	13
REDUCER	13
RINGS Extension	12
Adaptor	12
SADDLES One-Way (Single)	14
Distance	14
Hospital	14
Spacer Bar	14
Clips (Half Saddle)	14
SCREWS Brass	14
Steel	14
STOCKS	5
STUDS Earth Terminal	14
SWITCH and	
SOCKET BOXES	18 – 19
TEES Channel, Inspection	12
Solid	12
TRUNKING Quick-fix	21 – 23
Lighting	24 – 25
Multi-compartment	26
WASHERS Lead	12
Neoprene	12
Serrated	12

Note: for numerical index refer to page 31

- Please Note:**
1. Pre-galvanised conduit does not meet the requirements of BS 4568.
It does not meet corrosion classifications defined in this standard.
 2. Binding materials used to make up bundles of Conduit are not intended to be used when lifting this product which should be handled only with approved slings.

**HEAVY GAUGE CONDUIT
WELDED - SCREWED**

Manufactured in accordance with BS 31/BS 4568/BS 6053/BS 6099 (I.E.C. 614) where applicable. Each 3.75 metre length screwed both ends and complete with one solid coupling.



	External Diameter	No. of lengths per bundle	No. of bundles per lift	Metres per lift	Approx. weight per lift Tonnes
BS 4568/BS EN 50086/ BS EN 61386 Part 1 Class 4 finish HOT DIPPED GALVANISED INSIDE & OUTSIDE 3.75 metre lengths	20mm 25mm 32mm	8 8 4	50 40 41	1500 1200 615	1.16 1.17 0.80
BS 31 Class 4 finish HOT DIPPED GALVANISED INSIDE & OUTSIDE 3.75 metre lengths	1½" 2"	4 4	21 21	315 315	0.54 0.85
PRE-GALVANISED INSIDE & OUTSIDE 3.75 metre lengths	20mm 25mm	8 8	50 40	1500 1200	1.09 1.11
BS 4568/BS EN 50086/ BS EN 61386 Part 1 Class 2 finish BLACK ENAMELLED INSIDE & OUTSIDE 3.75 metre lengths	20mm 25mm 32mm	8 8 4	50 40 41	1500 1200 615	1.16 1.17 0.80
BS 31 Class 2 finish BLACK ENAMELLED INSIDE & OUTSIDE 3.75 metre lengths	1½" 2"	4 4	21 21	315 315	0.54 0.85

Above conduit is packed and shipped in LIFTS (also known as Master Bundles). Each lift comprising the stated number of individual bundles measuring approximately 45-50 centimetres in diameter and 3.75 metres long. The weight varies according to size and finish of conduit but approximate weights are shown above.

Table 4
Conduit factors
for runs
incorporating
bends

Length of run Metres	CONDUIT DIAMETER, MM																			
	16	20	25	32	16	20	25	32	16	20	25	32	16	20	25	32	16	20	25	32
	Straight				One bend				Two bends				Three bends				Four bends			
1	Covered by Tables 1 and 2	188	303	543	947	177	286	514	900	158	256	463	818	130	213	388	692			
1.5		182	294	528	923	167	270	487	857	143	233	422	750	111	182	333	600			
2		177	286	514	900	158	256	463	818	130	213	388	692	97	159	292	529			
2.5		171	278	500	878	150	244	442	783	120	196	358	643	86	141	260	474			
3		167	270	487	857	143	233	422	750	111	182	333	600							
3.5	179	290	521	911	162	263	475	837	136	222	404	720	103	169	311	563				
4	177	286	514	900	158	256	463	818	130	213	388	692	97	159	292	529				
4.5	174	282	507	889	154	250	452	800	125	204	373	667	91	149	275	500				
5	171	278	500	878	150	244	442	783	120	196	358	643	86	141	260	474				
6	167	270	487	857	143	233	422	750	111	182	333	600								
7	162	263	475	837	136	222	404	720	103	169	311	563								
8	158	256	463	818	130	213	388	692	97	159	292	529								
9	154	250	452	800	125	204	373	667	91	149	275	500								
10	150	244	442	783	120	196	358	643	86	141	260	474								

CABLE CAPACITIES OF CONDUIT

The following tables give guidance on the calculation of the number of single-core p.v.c insulated cables which can be located in various sizes of conduit.

The tables deal with two particular cases.

- (i) Single-core p.v.c. insulated cables in straight runs not exceeding 3 metres in length.
- (ii) Single-core p.v.c. insulated cables in straight runs exceeding 3 metres in length or in runs of any length with bends or sets.

STRAIGHT RUNS NOT EXCEEDING

3 METRES IN LENGTH.

For each type of cable being used obtain the cable factor from Table 1. Sum all the cable factors and compare with the conduit factors given in Table 2.

The conduit sizes which will accommodate the cables are those with a conduit factor equal to or greater than the sum of the cable factors.

Type of conductor	Conductor cross-sectional area mm ²	Factor
Solid	1	22
	1.5	27
	2.5	39
Stranded	1.5	31
	2.5	43
	4	58
	6	88
	10	146

These tables are based on the 17th edition of the I.E.E. Wiring Regulations Appendix 12.

Conduit dia mm	Factor
16	290
20	460
25	800
32	1400

Table 1 Cable factors for short straight runs

Table 2 Conduit factors for short straight runs

STRAIGHT RUNS EXCEEDING 3 METRES

IN LENGTH OR RUNS OF ANY LENGTH

INCORPORATING BENDS OR SETS.

For each type of cable being used obtain the cable factor from Table 3.

Sum all the cable factors and compare with the conduit factor given in Table 4 for the relevant length of run and the number of bends and sets in that run.

The conduit sizes which will accommodate the cables are those with a conduit factor equal to or greater than the sum of the cable factors.

Table 3 Cable factors for long straight runs, or runs incorporating bends

Type of conductor	Conductor cross-sectional area mm ²	Factor
Solid or Stranded	1	16
	1.5	22
	2.5	30
	4	43
	6	58
	10	105

SPACING OF SUPPORTS FOR CONDUITS

The following table gives guidance on the spacing of supports for conduit.

Nominal size of conduit mm	Maximum distance between supports	
	Horizontal runs m	Vertical runs m
16mm	0.75	1.0
17mm – 25mm	1.75	2.0
26mm – 40mm	2.0	2.25
Over 40mm	2.25	2.5

This table is based on the 17th edition of the I.E.E. Wiring Regulations Appendix 11.

These tables are for guidance only and account needs to be taken of future wiring needs.

STOCKS, DIES, GUIDES

Complete set Comprising Stock, Dies and Guides.

To screw conduit dia. of 16mm up to 2".

SD2025 Complete set comprising stock, dies and guides for 20mm and 25mm Conduit. Overall Dia. of Dies 42mm.

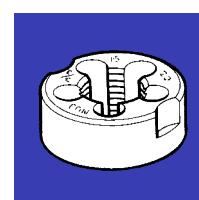


SD32 Complete set comprising stock, die and guide for 32mm Conduit. Overall Dia. of Die 63.5mm

SD3850 Complete set comprising stock, dies and guides for 1½" and 2" Conduit. Overall Dia. of Dies 3½".

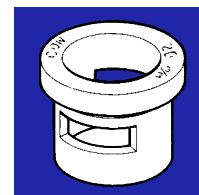
Stock - Spare

ST42	Stock	Overall Dia. of Die
ST64	Stock	42mm
		63.5mm



Die - Spare Steel

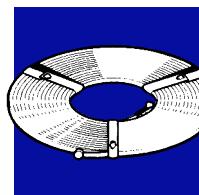
	Overall Dia. of Die
DE16	16mm Die 42mm
DE20	20mm Die 42mm
DE25	25mm Die 42mm
DE32	32mm Die 63.5mm
DE38	1½" Die 3½"
DE50	2" Die 3½"



Guide - Spare Steel

	Overall Dia. of Die
GE16	16mm Guide 42mm
GE20	20mm Guide 42mm
GE25	25mm Guide 42mm
GE32	32mm Guide 63.5mm
GE38	1½" Guide 3½"
GE50	2" Guide 3½"

DRAW-IN TAPES



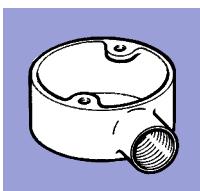
Draw-in Tape - Steel

No. DT20 Size 20 Metres x 3.2mm

No. DT30 Size 30 Metres x 3.2mm

BOXES - CIRCULAR, SMALL

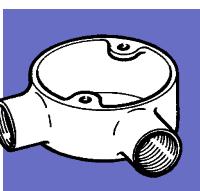
Material: Malleable Iron
 Finishes: Black Enamel, Galvanised
 60.3mm Internal Diameter
 20mm Boxes Minimum 25mm Deep
 25mm Boxes Minimum 28mm Deep
 Tapped M4 at 50.8mm centres.
 With tapped hole in base for earthing screw.
 Supplied without covers or fixing screws unless ordered.

**Terminal No. M181**

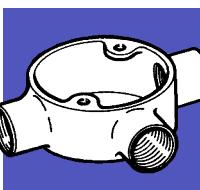
Size 20mm 25mm
 Standard Pack Qty 10 10

**Through No. M182**

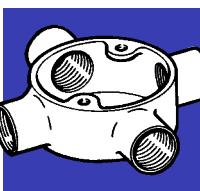
Size 20mm 25mm
 Standard Pack Qty 10 10

**Angle No. M183**

Size 20mm 25mm
 Standard Pack Qty 10 10

**Tee No. M184**

Size 20mm 25mm
 Standard Pack Qty 10 10

**Intersection No. M185**

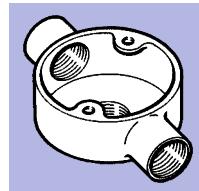
Size 20mm 25mm
 Standard Pack Qty 10 10

**Back Outlet No. M186**

Size 20mm 25mm
 Standard Pack Qty 10 10

**Terminal and Back Outlet No. M187**

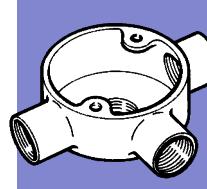
Size 20mm 25mm
 Standard Pack Qty 10 10

**Through and Back Outlet No. M188**

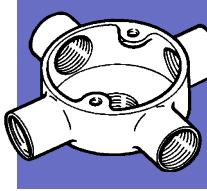
Size 20mm 25mm
 Standard Pack Qty 10 10

**Angle and Back Outlet No. M189**

Size 20mm 25mm
 Standard Pack Qty 10 10

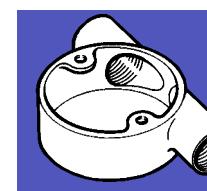
**Tee and Back Outlet No. M190**

Size 20mm 25mm
 Standard Pack Qty 10 10



Intersection and Back Outlet No. M191

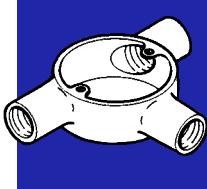
Size 20mm 25mm
 Standard Pack Qty 10 10

**Tangent Through No. M192**

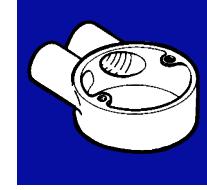
Size 20mm 25mm
 Standard Pack Qty 10 10

**Tangent Angle No. M193**

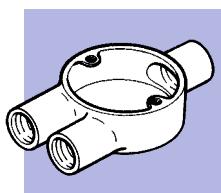
Size 20mm 25mm
 Standard Pack Qty 10 10

**Tangent Tee No. M194**

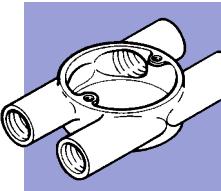
Size 20mm 25mm
 Standard Pack Qty 10 10

**Branch Two Way (U) No. M195**

Size 20mm 25mm
 Standard Pack Qty 10 10

**Branch Three Way (Y) No. M196**

Size 20mm 25mm
Standard Pack Qty 10 10

**Twin Through Way (H) No. M197**

Size 20mm 25mm
Standard Pack Qty 10 10

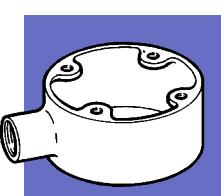
BOXES - CIRCULAR, LARGE

Material: Malleable Iron
Finishes: Black Enamel, Galvanised
81mm Internal Diameter,
20mm and 25mm Boxes Minimum 35mm Deep.
32mm Box Minimum 38mm Deep.
 $1\frac{1}{2}$ " Box Minimum 44mm Deep.
2" Box Minimum 57mm Deep.

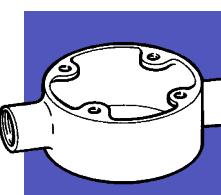
Tapped M4 at 71.5mm Centres.

With tapped hole in base for earthing screw.

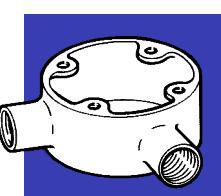
Supplied without covers or fixing screws unless ordered.

**Terminal No. M211**

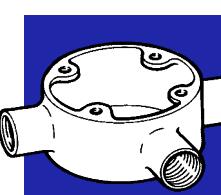
Size 20mm 25mm 32mm
Standard Pack Qty 5 5 5
Size $1\frac{1}{2}$ " and 2" are available on
special request only

**Through No. M212**

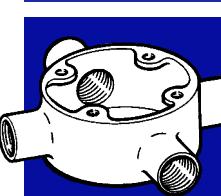
Size 20mm 25mm 32mm
Standard Pack Qty 5 5 5
Size $1\frac{1}{2}$ " and 2" are available on
special request only

**Angle No. M213**

Size 20mm 25mm 32mm
Standard Pack Qty 5 5 5
Size $1\frac{1}{2}$ " and 2" are available on
special request only

**Tee No. M214**

Size 20mm 25mm 32mm
Standard Pack Qty 5 5 5
Size $1\frac{1}{2}$ " and 2" are available on
special request only

**Intersection No. M215**

Size 20mm 25mm 32mm
Standard Pack Qty 5 5 5
Size $1\frac{1}{2}$ " and 2" are available on
special request only

**Back Outlet No. M216**

Size 20mm
Standard Pack Qty 5

**Terminal and Back Outlet No. M217**

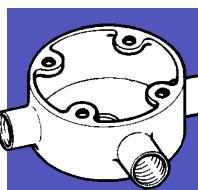
Size 20mm
Standard Pack Qty 5

**Through and Back Outlet No. M218**

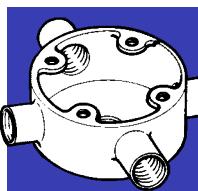
Size 20mm
Standard Pack Qty 5

**Angle and Back Outlet No. M219**

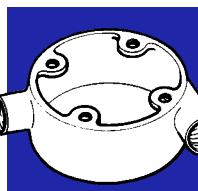
Size 20mm
Standard Pack Qty 5

**Tee and Back Outlet No. M220**

Size 20mm
Standard Pack Qty 5

**Intersection and Back Outlet
No. M221**

Size 20mm
Standard Pack Qty 5

**Tangent Angle No. M222**

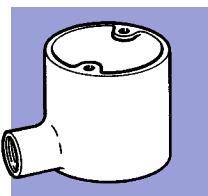
Size 20mm 25mm 32mm
Standard Pack Qty 5 5 5

**Tangent Tee No. M223**

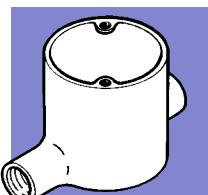
Size 20mm 25mm 32mm
Standard Pack Qty 5 5 5

BOXES - CIRCULAR, SMALL SPECIAL DEEP

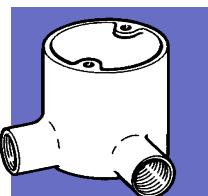
Material: Malleable Iron
 Finishes: Black Enamel, Galvanised
 60.3mm Internal Diameter x 62mm Deep. Tapped M4 at 50.8mm Centres. With tapped hole in base for earthing screw.
 Supplied without covers or fixing screws unless ordered.

**Terminal No. M231**

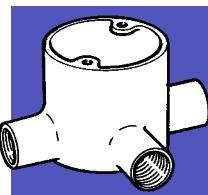
Size 20mm 25mm
 Standard Pack Qty 5 5
 Size 1½" and 2" are available on special request only

**Through No. M232**

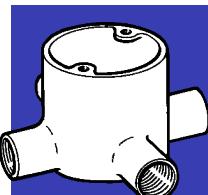
Size 20mm
 Standard Pack Qty 5

**Angle No. M233**

Size 20mm 25mm
 Standard Pack Qty 5 5

**Tee No. M234**

Size 20mm 25mm
 Standard Pack Qty 5 5

**Intersection No. M235**

Size 20mm 25mm
 Standard Pack Qty 5 5

BOXES - CIRCULAR, SMALL EXTENSION PATTERN

Material: Malleable Iron
 Finishes: Black Enamel, Galvanised
 60.3mm Internal Diameter
 20mm Boxes Minimum 25mm Deep
 25mm Boxes Minimum 28mm Deep
 Tapped M4 at 50.8mm centres.
 With tapped hole in base for earthing screw.
 Supplied without covers or fixing screws unless ordered.

**Terminal No. M241**

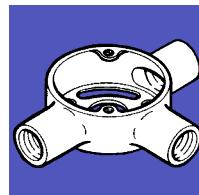
Size 20mm 25mm
 Standard Pack Qty 10 10

**Through No. M242**

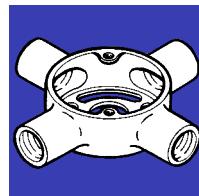
Size 20mm 25mm
 Standard Pack Qty 10 10

**Angle No. M243**

Size 20mm 25mm
 Standard Pack Qty 10 10

**Tee No. M244**

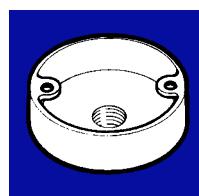
Size 20mm 25mm
 Standard Pack Qty 10 10

**Intersection No. M245**

Size 20mm 25mm
 Standard Pack Qty 10 10

BOXES - CEILING ROSE

Material: Malleable Iron
 Finishes: Black Enamel, Galvanised
 With tapped hole in base for earthing screw. Internal Diameter minimum 55mm and Minimum Depth 12.5mm. Tapped M4 at 50.8mm Centres.

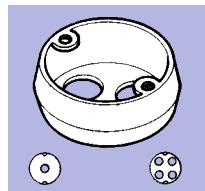
**Shallow No. M361**

Size 20mm
 Standard Pack Qty 25

Note this is a special modified version of M186

BOXES - LOOPING IN

With tapped hole in base for earthing screw. 20mm clearance.

**Medium, Steel No. R274**

Material: Steel. Finishes: Black Enamel, Galvanised. With tapped hole in base for earthing screw. 1 Hole or 4 Knockouts. Size: 29mm Deep x 63.5mm Internal Diameter. Standard Pack Qty: 10

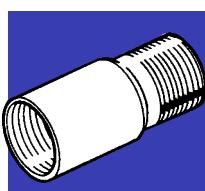
**Medium, Malleable Iron No. M272**

Material: Malleable Iron. Finishes: Black Enamel, Galvanised. With tapped hole in base for earthing screw. 1,2,3,4 Holes. Minimum 31mm Deep x 63.5mm Internal Diameter. Standard Pack Qty: 10

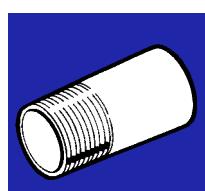
ADAPTORS

Material:
Finish:

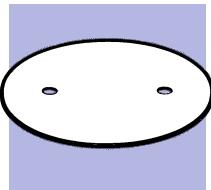
Steel
Electro Zinc Plated

**Imperial to Metric Adaptor No. R114**

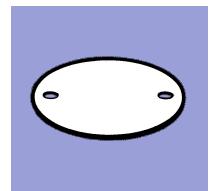
Size: $\frac{3}{4}$ " MALE to 20mm FEMALE
Standard Pack Qty: 100
Size: 1" MALE to 25mm FEMALE
Standard Pack Qty: 50

**Metric to Imperial Adaptor No. R115**

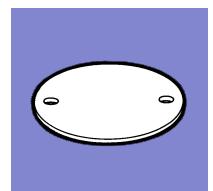
Size: 20mm MALE to $\frac{3}{4}$ " FEMALE
Standard Pack Qty: 100
Size: 25mm MALE to 1" FEMALE
Standard Pack Qty: 50

COVERS – CIRCULAR SMALL

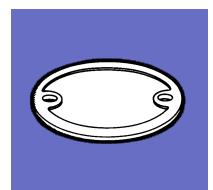
**Cover, Light, Overlapping, Loose,
No Screws No. R280**
Material: Steel
Finishes: Black Enamel, Galvanised
Standard Pack Qty: 50



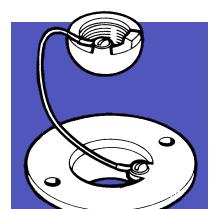
**Cover, Light, Loose, No Screws.
No. R281**
Material: Steel
Finishes: Black Enamel, Galvanised
Standard Pack Qty: 100



**Cover, Heavy, Loose, No Screws
No. R282**
Material: Steel
Finishes: Black Enamel, Galvanised
Standard Pack Qty: 50



**Cover, Heavy, Loose, No Screws
No. M283**
Material: Malleable Iron
Finishes: Black Enamel, Galvanised
Standard Pack Qty: 50



**Cover, Ball and Socket, Earthed
No. M286**
Material: Malleable Iron with copper earthwire
Finishes: Black Enamel, Galvanised
Size 20mm 25mm
Standard Pack Qty: 25 25



**Cover, Hook Dome, Combined
No. R287**
Material: Steel
Finishes: Black Enamel, Galvanised
Standard Pack Qty: 25



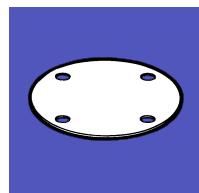
**Cover, Female Dome
No. M288**
Material: Malleable Iron
Finishes: Black Enamel, Galvanised
Size 20mm 25mm
Standard Pack Qty 25 25



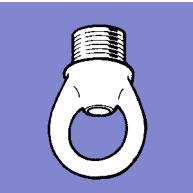
**Cover, Female Dome
No. R289**
Material: Steel
Finishes: Black Enamel, Galvanised
Size 20mm 25mm
Standard Pack Qty 25 25



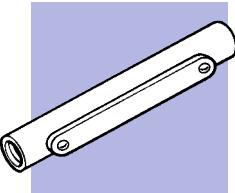
**Cover, Ball and Socket, Earthed
No. R290**
Material: Steel
Finishes: Black Enamel, Galvanised
Size 20mm
Standard Pack Qty 25

COVERS – CIRCULAR LARGE

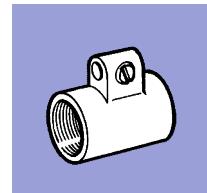
**Cover, Light, Loose, No Screws
No. R381**
Material: Steel
Finishes: Black Enamel, Galvanised
Standard Pack Qty: 50

HOOKS AND LOOPS**Loop, Male No. M501**

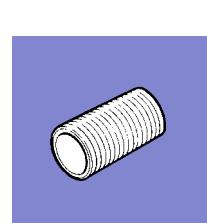
Material: Malleable Iron
Finishes: Black Enamel, Galvanised
Size 20mm 25mm
Standard Pack Qty 50 50

**Coupling, Inspection No. M103**

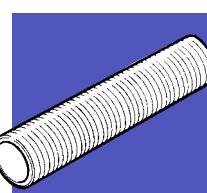
Material: Malleable Iron Body, 16mm – 32mm, Steel Cover, 1½" – 2" Malleable Iron Cover
Finishes: Black Enamel, Galvanised
Size 20mm 25mm 32mm
Standard Pack Qty 25 10 5
Size 1½" 2"
Standard Pack Qty 5 1

**Hook, Male No. M502**

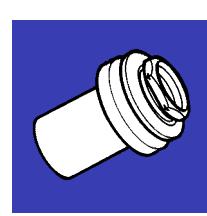
Material: Malleable Iron
Finishes: Black Enamel, Galvanised
Size 20mm 25mm
Standard Pack Qty 50 50

**Coupling, Earthing No. M105**

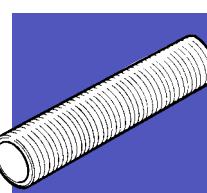
Material: Malleable Iron
Finishes: Black Enamel, Galvanised
Size 20mm 25mm 32mm
Standard Pack Qty 50 50 25
Size 1½" 2"
Standard Pack Qty 25 10

**Loop, Female No. M503**

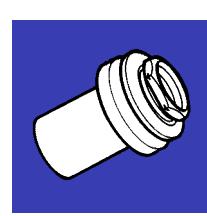
Material: Malleable Iron
Finishes: Black Enamel, Galvanised
Size 20mm 25mm
Standard Pack Qty 50 50

**Nipple, Normal No. F107**

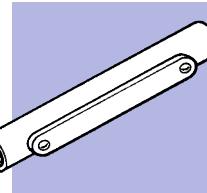
Material: Steel
Finishes: Self Colour, Galvanised
Size 20mm 25mm 32mm
Standard Pack Qty 100 100 50
Size 1½" 2"
Standard Pack Qty 50 25

**Hook, Female No. M504**

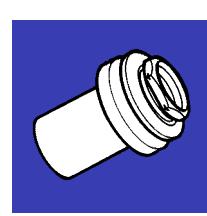
Material: Malleable Iron
Finishes: Black Enamel, Galvanised
Size 20mm 25mm
Standard Pack Qty 50 50

**Nipple, 300mm Long No. F109**

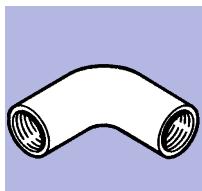
Material: Steel
Finishes: Black Enamel, Galvanised
Size 20mm 25mm 32mm
Standard Pack Qty 10 10 10
Size 1½" 2"
Standard Pack Qty 10 5

**COUPLINGS****Coupling, Solid No. R101**

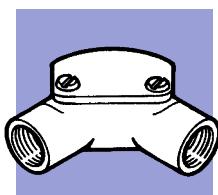
Material: Steel
Finishes: Black Enamel, Galvanised
Size 20mm 25mm 32mm
Standard Pack Qty 100 50 50
Size 1½" 2"
Standard Pack Qty 25 20

**Coupling, Flanged, No. M110/M111**

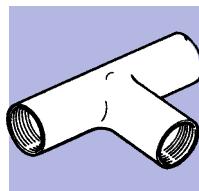
Material: Malleable Iron
Complete with washer and brass bush
N.B. – Neoprene washers effect a greater degree of protection from the ingress of dust and/or liquids.
Finishes: Black Enamel, Galvanised
M110 (lead washer),
M111 (Neoprene washer)
Size 20mm 25mm 32mm
Standard Pack Qty 50 50 25
Size 1½"
Standard Pack Qty 25

ELBOWS**Elbow, Solid No. M121**

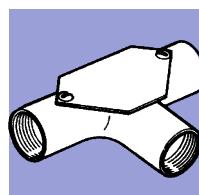
Material: Malleable Iron
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm 32mm
 Standard Pack Qty 25 25 10
 Size 1½" 2"
 are available on request only

**Elbow, Channel Inspection, No. M123**

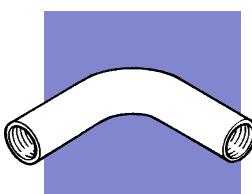
Material: Malleable Iron, 20mm – 32mm Steel Cover 1½" – 2" Malleable Iron Cover
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm 32mm
 Standard Pack Qty 25 25 10
 Size 1½" 2"
 are available on request only

TEES**Tee, Solid No. M131**

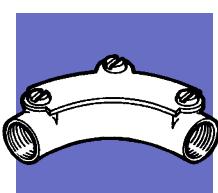
Material: Malleable Iron
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm 32mm
 Standard Pack Qty 25 25 10
 Size 1½" 2"
 are available on request only

**Tee, Channel Inspection, No. M133**

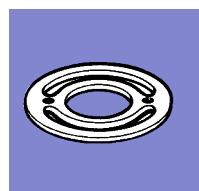
Material: Malleable Iron, 20mm – 32mm Steel Cover 1½" – 2" Malleable Iron Cover
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm 32mm
 Standard Pack Qty 25 20 10
 Size 1½" 2"
 are available on request only

BENDS**Bends, Normal, Internal Thread**

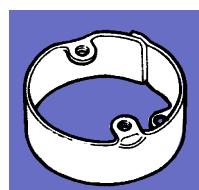
No. R141
 Material: Steel
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm 32mm
 Standard Pack Qty 25 10 5
 Size 1½" 2"
 are available on request only

**Bend, Inspection No. M145**

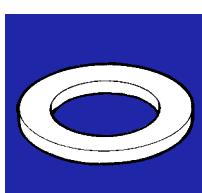
Material: Malleable Iron, 20mm – 32mm Steel Cover 1½" – 2" Malleable Iron Cover
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm 32mm
 Standard Pack Qty 25 10 5
 Size 1½" 2"
 are available on request only

RINGS**Ring, Adaptor No. M370**

Material: Malleable Iron
 Finishes: Black Enamel, Galvanised
 Standard Pack Qty: 100

**Ring, Extension No. R294**

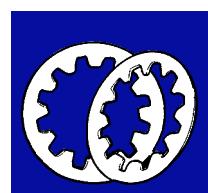
Material: Steel
 Finishes: Black Enamel, Galvanised
 Size 6mm 10mm 13mm
 Standard Pack Qty 100 50 50
 Size 16mm 19mm 25mm
 Standard Pack Qty 25 25 25
 Size 32mm 38mm 50mm
 Standard Pack Qty 10 10 10

WASHERS**Lead No. F112**

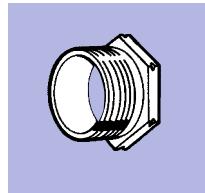
Neoprene No. F113
 Size 20mm 25mm 32mm
 Standard Pack Qty 50 50 25
 Size 1½"
 Standard Pack Qty 25

**Clip, Earthing No. F506**

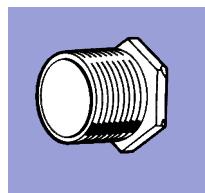
Material: Copper
 Finish: Self Colour
 Size 20mm 25mm 32mm
 Standard Pack Qty 100 100 50
 Size 1½" 2"
 Standard Pack Qty 50 50

**Serrated No. F116**

Material: Steel
 Finishes: Self Colour, Zinc Plated
 Size 20mm 25mm 32mm
 Standard Pack Qty 100 100 100

BUSHES**Bush, Short Male No. F531**

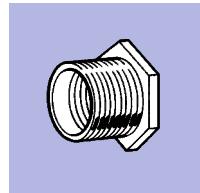
Material:	Brass
Finish:	Self Colour
Size	20mm 25mm 32mm
Standard Pack Qty	100 50 50
Size	1½" 2"
Standard Pack Qty	50 25

**Bush, Long Male No. F532**

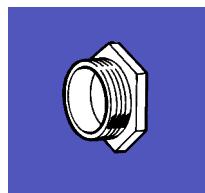
Material:	Brass
Finish:	Self Colour
Size	20mm 25mm 32mm
Standard Pack Qty	100 50 50
Size	1½" 2"
Standard Pack Qty	25 25

**Bush, Female No. F534**

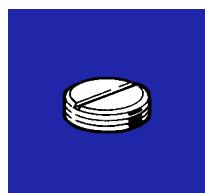
Material:	Brass
Finish:	Self Colour
Size	20mm 25mm 32mm
Standard Pack Qty	100 100 100
Size	1½" 2"
Standard Pack Qty	100 50

REDUCERS**Reducer No. M471**

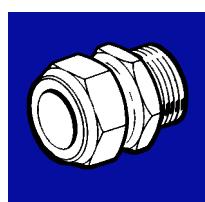
Material:	Malleable Iron
Finishes:	Black Enamel, Galvanised
Size	20 x 16mm 25 x 16mm
St'd Pack Qty	100 100
25 x 20mm	32 x 20mm
100	50
32 x 25mm	1¼" x 20mm
50	50
1¼" x 25mm	1½" x 20mm
50	50
1½" x 25mm	1½" x 32mm
50	50
2" x 25mm	2" x 32mm
25	25
2" x 1½"	25

PLUGS AND GLANDS**Plug, Hexagon Head, No. M527**

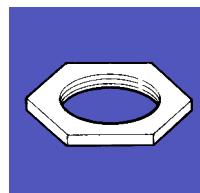
Material:	Malleable Iron
Finishes:	Black Enamel, Galvanised
Size	20mm 25mm 32mm
Standard Pack Qty	100 100 100
Size	1½" 2"
Standard Pack Qty	50 25

**Plug, Slotted Head No. F535**

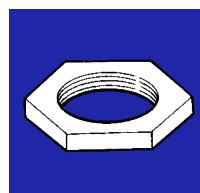
Material:	Brass
Finishes:	Self Colour
Size	20mm 25mm 32mm
Standard Pack Qty	100 100 100
Size	1½" 2"
Standard Pack Qty	100 50

**Gland for T.R.S. or similar cable**

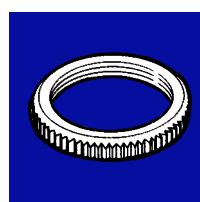
Material:	Brass
Finishes:	Self Colour
Size	20mm 25mm
Standard Pack Qty	100 100

LOCKNUTS**Locknut, Hexagon Light No. R507**

Material:	Steel
Finishes:	Black Enamel, Galvanised
Size	20mm 25mm 32mm
Standard Pack Qty	100 100 100
Size	1½" 2"
Standard Pack Qty	50 25

**Locknut, Hexagon Heavy No. M508**

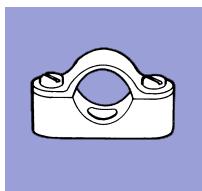
Material:	Malleable Iron
Finishes:	Black Enamel, Galvanised
Size	20mm 25mm 32mm
Standard Pack Qty	100 100 100
Size	1½" 2"
Standard Pack Qty	50 50

**Locknut, Circular, Milled Edge**

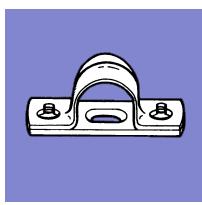
Material:	Steel
Finishes:	Self Colour, Zinc Plated
Size	20mm 25mm 32mm
Standard Pack Qty	100 100 100
Size	1½" 2"
Standard Pack Qty	50 25

SADDLES**Saddle, Hospital No. M362**

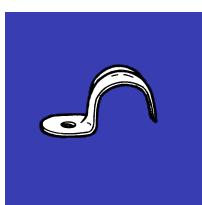
Material: Malleable Iron Base, with Steel Top
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm 32mm
 Standard Pack Qty 50 25 25
 Size 1½" 2"
 Standard Pack Qty 25 10

**Saddle, Distance No. M363**

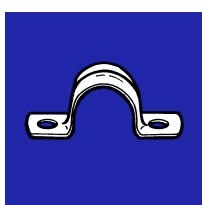
Material: Iron Base with Steel Top
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm 32mm
 Standard Pack Qty 50 25 25
 Size 1½" 2"
 Standard Pack Qty 25 10

**Saddle, Spacer Bar, One Way****No. R431**

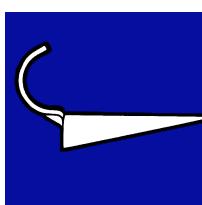
Material: Steel
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm 32mm
 Standard Pack Qty 100 100 50
 Size 1½" 2"
 Standard Pack Qty 50 25

**Clip (Half Saddle) No. F441**

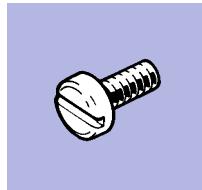
Material: Steel
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm
 Standard Pack Qty 100 100
 Size 32mm
 Standard Pack Qty 100

**Saddle, 1 Way (Single) No. R451**

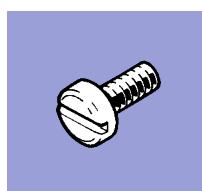
Material: Steel
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm 32mm
 Standard Pack Qty 100 100 100
 Size 1½" 2"
 Standard Pack Qty 100 50

**Crampet, Steel No. F461**

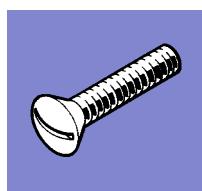
Material: Steel
 Finishes: Black Enamel, Galvanised
 Size 20mm 25mm
 Standard Pack Qty 100 100

SCREWS**Brass. M4 Pan Head No. F645**

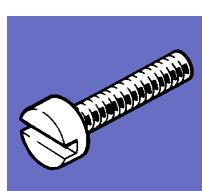
Length: 6mm 10mm 12mm 16mm
 20mm 25mm
 Standard Pack Qty: 100

**Brass. M3.5 Pan Head No. F646**

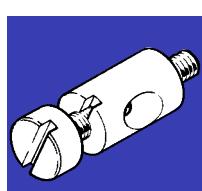
Length: 6mm 10mm 12mm 16mm
 20mm 25mm
 Standard Pack Qty: 100

**Brass. M3.5 Raised Countersunk
No. F647**

Length: 6mm 10mm 12mm 16mm
 20mm 25mm
 Standard Pack Qty: 100

**Brass. M3.5 Cheese Head No. F648**

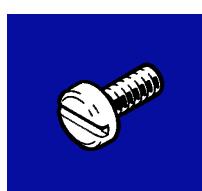
Length: 6mm 10mm 12mm 16mm
 20mm 25mm
 Standard Pack Qty: 100

**Brass. M4 Earth Terminal Studs
No. F657**

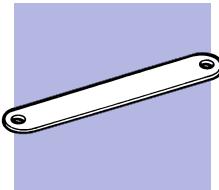
Standard Pack Qty: 100

**Screw – Steel, Bright Zinc Plated.
M4 Pan Head No. F645**

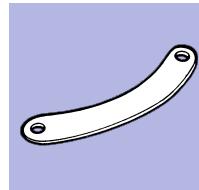
Length: 5mm 6mm
 Standard Pack Qty: 100

**Screw – Steel, Bright Zinc Plated.
M3.5 Pan Head No. F646**

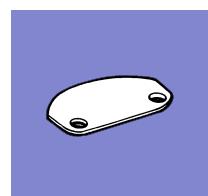
Length: 5mm 6mm
 Standard Pack Qty: 100

GASKETS

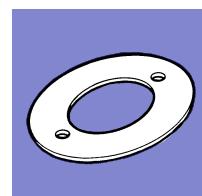
Rubber Gasket for Coupling,
Inspection No. F401
Size 20mm 25mm 32mm
Size 1½" 2"

NO STANDARD PACK – ORDER AS REQUIRED

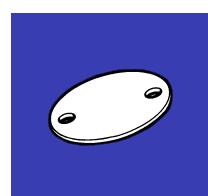
Rubber Gasket for Bend,
Inspection No. F408
Size 20mm 25mm 32mm
Size 1½" 2"



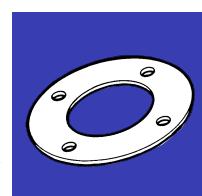
Rubber Gasket for Elbow,
Channel Inspection No. F402
Size 20mm 25mm 32mm
Size 1½" 2"



Rubber Gasket for Box,
Small Circular No. F409

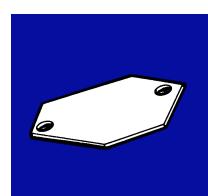


Rubber Gasket for Elbow,
Circular Inspection No. F403

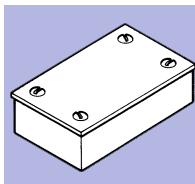


Rubber Gasket for Box,
Large Circular No. F410

Rubber Gaskets also available for all sizes of
Adaptable Boxes **No. F415**



Rubber Gasket for Tee,
Channel Inspection No. F405
Size 20mm 25mm 32mm
Size 1½" 2"



Barton Adaptable Boxes are manufactured from steel and are available with plain sides or knock-outs.

The standard finishes are Black Enamel and Hot Dipped Galvanised.

Where boxes are supplied with knock-outs the number and size are as follows:

Width of side	Number of K.O.'s in each side	Size of K.O.
3"	2	20mm
4"	3	20mm
6"	4	20mm
9"	6	20mm
12"	6	20mm

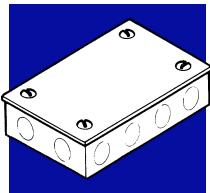
Flanged lids are fitted as standard to all boxes and are secured by M5 x 8mm mushroom head screws.

Boxes can be supplied to order with overlapping flat lids at an extra charge.

Rubber gaskets are available and supplied to order at an extra charge.

The complete range is manufactured in accordance with BS 4568 Part 2.

A range of Pre-Galvanised Adaptable Boxes are also available on request.



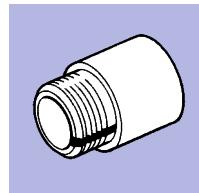
**Adaptable Boxes
with Knock-outs No. R262**

**Adaptable Boxes
Plain No. R261**

Size		Pack Qty
mm	Inches	
75 x 75 x 37.5	3 x 3 x 1½	10
75 x 75 x 50	3 x 3 x 2	10
75 x 75 x 75	3 x 3 x 3	6
100 x 75 x 37.5	4 x 3 x 1½	10
100 x 75 x 50	4 x 3 x 2	10
100 x 100 x 37.5	4 x 4 x 1½	10
100 x 100 x 50	4 x 4 x 2	10
100 x 100 x 75	4 x 4 x 3	6
100 x 100 x 100	4 x 4 x 4	6
150 x 75 x 37.5	6 x 3 x 1½	6
150 x 75 x 50	6 x 3 x 2	6
150 x 75 x 75	6 x 3 x 3	6
150 x 100 x 37.5	6 x 4 x 1½	6
150 x 100 x 50	6 x 4 x 2	6
150 x 100 x 75	6 x 4 x 3	6
150 x 150 x 37.5	6 x 6 x 1½	6
150 x 150 x 50	6 x 6 x 2	6
150 x 150 x 75	6 x 6 x 3	4
150 x 150 x 100	6 x 6 x 4	2
150 x 150 x 150	6 x 6 x 7	2
200 x 150 x 150	8 x 6 x 2	6
200 x 200 x 100	8 x 8 x 4	2
200 x 200 x 150	8 x 8 x 6	2
225 x 75 x 37.5	9 x 3 x 1½	6
225 x 75 x 50	9 x 3 x 2	6
225 x 75 x 75	9 x 3 x 3	6
225 x 100 x 75	9 x 4 x 3	4
225 x 150 x 37.5	9 x 6 x 1½	4
225 x 150 x 50	9 x 6 x 2	4
225 x 150 x 75	9 x 6 x 3	4
225 x 150 x 100	9 x 6 x 4	2
225 x 225 x 50	9 x 9 x 2	2
225 x 225 x 75	9 x 9 x 3	2
225 x 225 x 100	9 x 9 x 4	1
225 x 225 x 150	9 x 9 x 6	1
300 x 150 x 50	12 x 6 x 2	2
300 x 150 x 75	12 x 6 x 3	2
300 x 150 x 100	12 x 6 x 4	2
300 x 225 x 50	12 x 9 x 2	2
300 x 225 x 75	12 x 9 x 3	1
300 x 225 x 100	12 x 9 x 4	1
300 x 300 x 37.5	12 x 12 x 1	2
300 x 300 x 50	12 x 12 x 2	2
300 x 300 x 75	12 x 12 x 3	1
300 x 300 x 100	12 x 12 x 4	1
300 x 300 x 150	12 x 12 x 6	1
400 x 300 x 150	16 x 12 x 6	1
450 x 450 x 150	18 x 18 x 6	1
600 x 600 x 150	24 x 24 x 6	1

REFER BARTON FLEXIBLE CATALOGUE FOR A COMPLETE RANGE OF FLEXIBLE CONDUITS AND FITTINGS**STANDARD FLEXIBLE METALLIC CONDUIT (UNPACKED)**Galvanised Steel – **No. F562**

Internal Diameter	16mm	20mm	25mm
	32mm	40mm	50mm 63mm

**Adaptor, Flexible Tube, Conduit, Male Thread No. F536**

Material: Brass.

Finishes: Self colour.

Conduit x Flexible Conduit I/D	Standard Pack Quantity
16mm x 16mm	100
20mm x 16mm	100
20mm x 20mm	50
25mm x 25mm	50
32mm x 32mm	25
1½" x 40mm	20
2" x 50mm	10

P.V.C. COVERED FLEXIBLE METALLIC CONDUITGalvanized Steel PVC Covered **NO. F582**

Available as standard in black P.V.C. sheathed for added protection against ingress of dirt, moisture and greases.

A full range of fittings is also available.

SPACING OF SUPPORTS FOR CONDUITS

The following table gives guidance on the spacing of support for flexible conduit.

Nominal size of conduit	Maximum distance between supports	
	Horizontal runs m	Vertical runs m
16mm and Under	0.3	0.5
17mm-25mm	0.4	0.6
26mm-40mm	0.6	0.8
Over 40	0.8	1.0

**Adaptor, Flexible Tube, Conduit, Female Thread No. F537**

Material: Brass.

Finishes: Self colour.

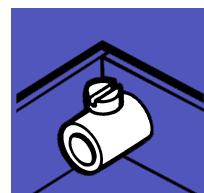
Conduit x Flexible Conduit I/D	Standard Pack Quantity
20mm x 16mm	100
20mm x 20mm	50
25mm x 20mm	50
25mm x 25mm	50
32mm x 32mm	25
1½" x 40mm	20
2" x 50mm	10

A comprehensive range of switch and socket boxes manufactured in four depths 16mm, 25mm, 35mm and 47mm and all available in one and two gang configurations. To facilitate the easy fitting of accessories into the boxes, they are designed with at least one adjustable lug.



Adjustable Lug

All Barton RE Series Switch and Socket Boxes include a unique Regulation Brass Earth Terminal into which several earth wires can be fitted from either the inside or outside of the box.



Regulation Brass Earth Terminal

Each box is produced with a specified number and size of knock outs which allow adequate cable entries for wiring purposes.

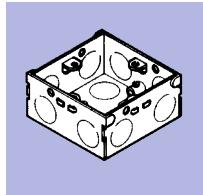
Nominal Dimensions:

One Gang – 72mm x 72mm

Two Gang – 132mm x 72mm

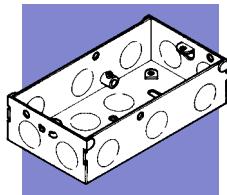
Material: Pre-coated galvanised steel

Barton switch and socket boxes are manufactured in accordance with BS 4662.



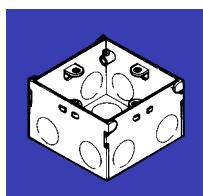
Switch and Socket Boxes
35mm deep **No. BC82RE2025**

Gang	Type of Entry	Fixing Lugs	Pack Qty.
One Gang	20 & 25mm KO's	3 fixed and 1 adjustable	10



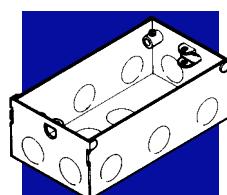
Switch and Socket Boxes
35mm deep **No. BC92RE**

Gang	Type of Entry	Fixing Lugs	Pack Qty.
Two Gang	20 & 25mm KO's	1 fixed and 1 adjustable	5



Switch and Socket Boxes
47mm deep **No. BC14RE**
(For use with double thickness partitioning)

Gang	Type of Entry	Fixing Lugs	Pack Qty.
One Gang	20mm KO's	2 fixed and 2 adjustable	20



Switch and Socket Boxes
47mm deep **No. BC22RE**
(For use with double thickness partitioning)

Gang	Type of Entry	Fixing Lugs	Pack Qty.
Two Gang	20 & 25mm KO's	1 fixed and 1 adjustable	10

THE BARTON CABLE TRUNKING RANGE

QUICK-FIX RANGE (QF)

This is the most popular range of trunking. It features a rapid and fool proof method for securing the lid, by simply twisting turnbuckles through 90 degrees. These lock the lid in place, providing full earth continuity between body and lid.

The range is manufactured from high quality galvanised steel as standard and is also available as an option with a coloured powder coating.

LIGHTING TRUNKING (LT)

The range of lighting trunking has a 50 x 50mm body section with either a white PVC or steel snap-in lid. Fittings are common to the Quick-Fix and Screw-Fix ranges, providing complete compatibility between cable and lighting trunking.

The standard finish is high quality galvanised steel.

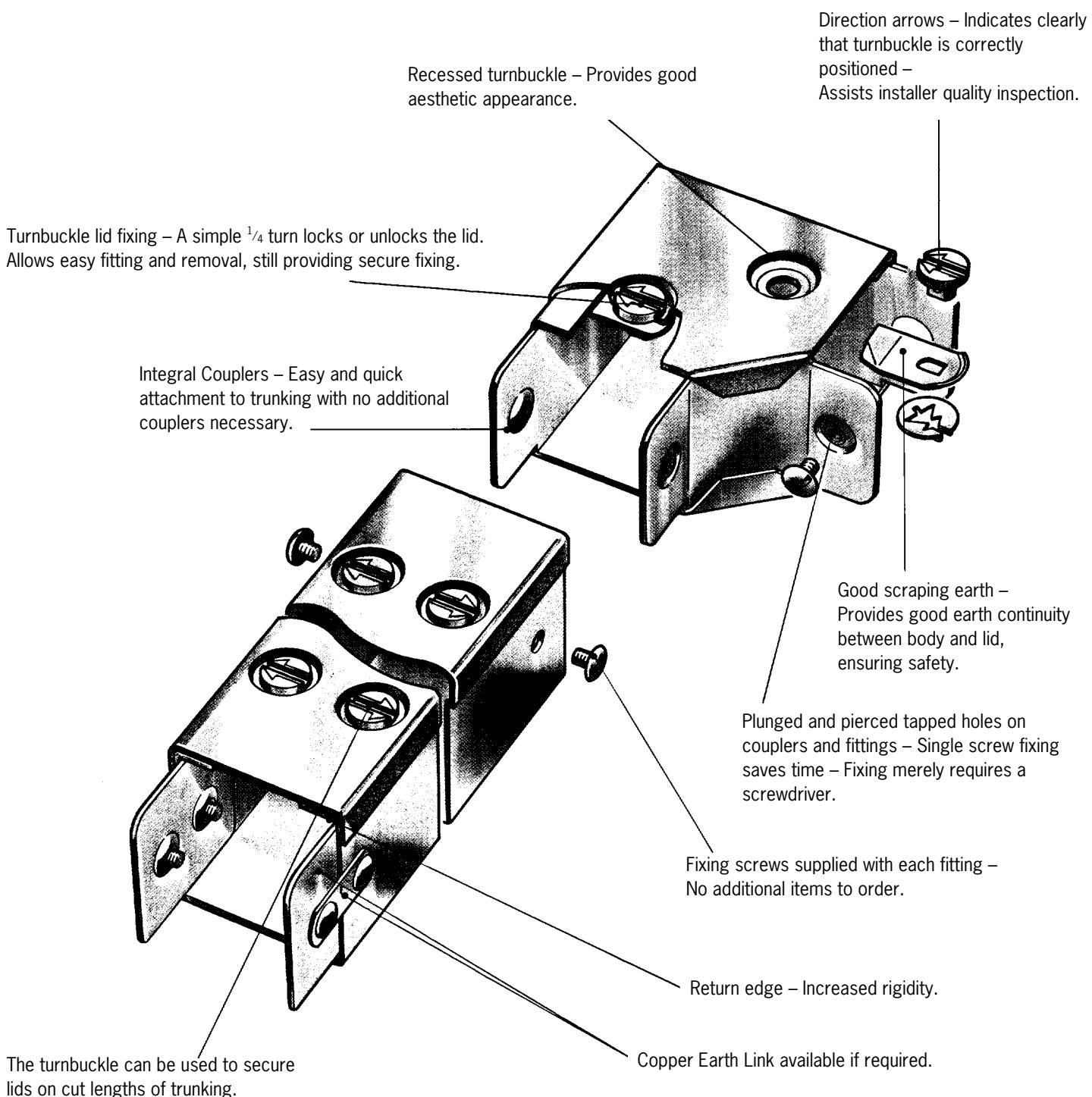
QUALITY

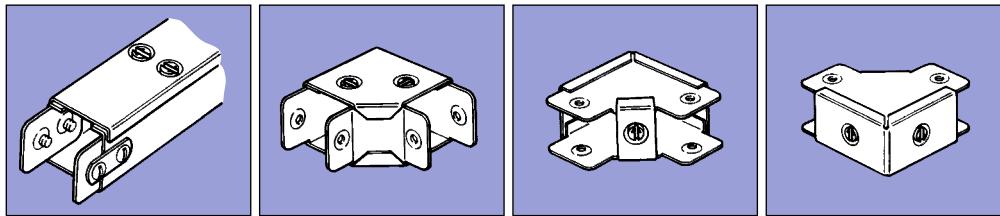
All galvanised steel used in the manufacture of cable trunking and fittings complies with BS EN 10142 (and BS 4678), ensuring a no-flake, no-fracture product.

MULTI COMPARTMENT TRUNKING

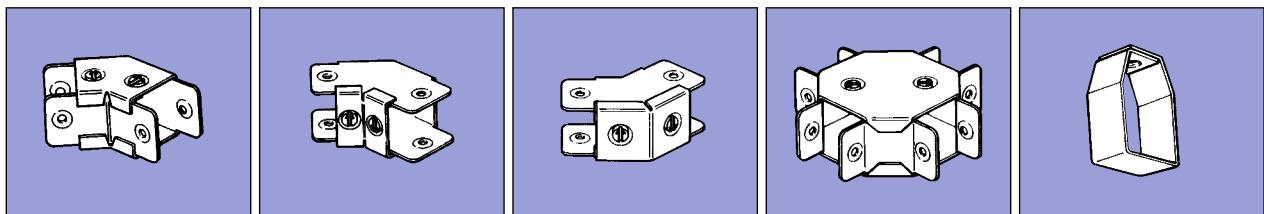
We manufacture Multi Compartment Trunking.
Please see Page 28 for further information.

QUICK-FIX





Dimensions (mm)	CABLE TRUNKING (See note [1] below)	RIGHT ANGLE BEND - TOP LID	RIGHT ANGLE BEND - INSIDE LID	RIGHT ANGLE BEND - OUTSIDE LID
50 x 50	QF/22	QF/RABT 22	QF/RABI 22	QF/RABO 22
75 x 50	QF/32	QF/RABT 32	QF/RABI 32	QF/RABO 32
75 x 75	QF/33	QF/RABT 33	QF/RABI 33	QF/RABO 33
100 x 50	QF/42	QF/RABT 42	QF/RABI 42	QF/RABO 42
100 x 75	QF/43	QF/RABT 43	QF/RABI 43	QF/RABO 43
100 x 100	QF/44	QF/RABT 44	QF/RABI 44	QF/RABO 44
150 x 50	QF/62	QF/RABT 62	QF/RABI 62	QF/RABO 62
150 x 75	QF/63	QF/RABT 63	QF/RABI 63	QF/RABO 63
150 x 100	QF/64	QF/RABT 64	QF/RABI 64	QF/RABO 64
150 x 150	QF/66	QF/RABT 66	QF/RABI 66	QF/RABO 66
225 x 100	QF/94	QF/RABT 94	QF/RABI 94	QF/RABO 94

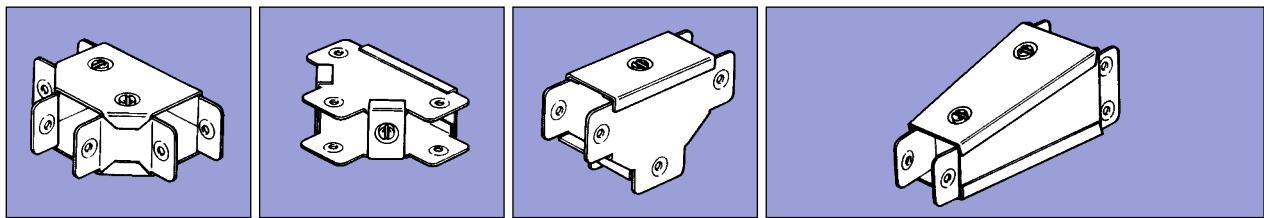


Dimensions (mm)	45 DEGREE BEND - TOP LID	45 DEGREE BEND - INSIDE LID	45 DEGREE BEND - OUTSIDE LID	4 WAY BOX	HANGER
50 x 50	QF/FFT 22	QF/FFI 22	QF/FFO 22	QF/FW 22	OF/H 22
75 x 50	QF/FFT 32	QF/FFI 32	QF/FFO 32	QF/FW 32	OF/H 32
75 x 75	QF/FFT 33	QF/FFI 33	QF/FFO 33	QF/FW 33	OF/H 33
100 x 50	QF/FFT 42	QF/FFI 42	QF/FFO 42	QF/FW 42	OF/H 42
100 x 75	QF/FFT 43	QF/FFI 43	QF/FFO 43	QF/FW 43	OF/H 43
100 x 100	QF/FFT 44	QF/FFI 44	QF/FFO 44	QF/FW 44	OF/H 44
150 x 50	QF/FFT 62	QF/FFI 62	QF/FFO 62	QF/FW 62	OF/H 62
150 x 75	QF/FFT 63	QF/FFI 63	QF/FFO 63	QF/FW 63	OF/H 63
150 x 100	QF/FFT 64	QF/FFI 64	QF/FFO 64	QF/FW 64	OF/H 64
150 x 150	QF/FFT 66	QF/FFI 66	QF/FFO 66	QF/FW 66	OF/H 66
225 x 100	QF/FFT 94	QF/FFI 94	QF/FFO 94	QF/FW 94	OF/H 94

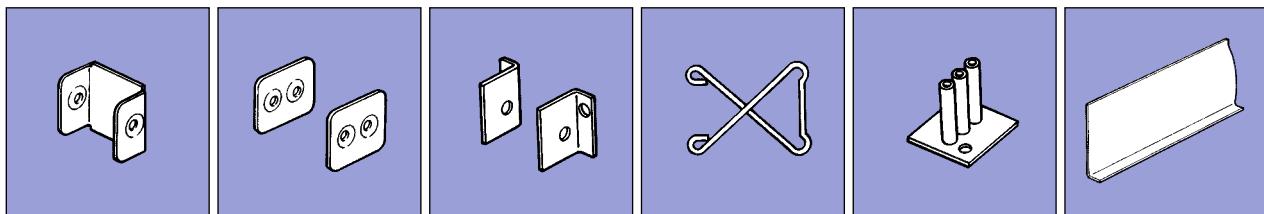
(1) Cable Trunking – 3m length complete with lid and couplers.

Product Code Example. QF/RABT 22. ie. Quick-Fix/Right Angle Bend Top 2" x 2".

All 50 x 50mm Fittings are compatible with 50 x 50mm Lighting Trunking.



Dimensions (mm)	TEE BEND - TOP LID	TEE BEND - INSIDE LID	TEE BEND - OUTSIDE LID	REDUCER	
50 x 50	QF/TT 22	QF/TI 22	QF/TO 22		
75 x 50	QF/TT 32	QF/TI 32	QF/TO 32	75 x 50 TO 50 x 50mm	QF/RED 32/22
75 x 75	QF/TT 33	QF/TI 33	QF/TO 33	75 x 75 TO 50 x 50mm	QF/RED 33/22
100 x 50	QF/TT 42	QF/TI 42	QF/TO 42	75 x 75 TO 75 x 50mm	QF/RED 33/32
100 x 75	QF/TT 43	QF/TI 43	QF/TO 43	100 x 50 TO 50 x 50mm	QF/RED 42/22
100 x 100	QF/TT 44	QF/TI 44	QF/TO 44	100 x 75 TO 50 x 50mm	QF/RED 43/22
150 x 50	QF/TT 62	QF/TI 62	QF/TO 62	100 x 100 TO 50 x 50mm	QF/RED 44/22
150 x 75	QF/TT 63	QF/TI 63	QF/TO 63	100 x 100 TO 75 x 75mm	QF/RED 44/33
150 x 100	QF/TT 64	QF/TI 64	QF/TO 64	150 x 100 TO 100 x 100mm	QF/RED 64/44
150 x 150	QF/TT 66	QF/TI 66	QF/TO 66	150 x 150 TO 100 x 100mm	QF/RED 66/44
225 x 100	QF/TT 94	QF/TI 94	QF/TO 94	150 x 150 TO 150 x 100mm	QF/RED 66/64



Dimensions (mm)	STOP END	COUPLER	FLANGED COUPLER	CABLE RETAINER	PIN RACK	LOOSE SEPARATOR 3m LENGTHS
50 x 50	QF/SE 22	QF/C 2	QF/FC 2	QF/CRS 2	QF/PR 22	QF/LS 2
75 x 50	QF/SE 32	QF/C 2	QF/FC 2	QF/CRS 3	QF/PR 32	QF/LS 2
75 x 75	QF/SE 33	QF/C 3	QF/FC 3	QF/CRS 3	QF/PR 33	QF/LS 3
100 x 50	QF/SE 42	QF/C 2	QF/FC 2	QF/CRS 4	QF/PR 42	QF/LS 2
100 x 75	QF/SE 43	QF/C 3	QF/FC 3	QF/CRS 4	QF/PR 43	QF/LS 3
100 x 100	QF/SE 44	QF/C 4	QF/FC 4	QF/CRS 4	QF/PR 44	QF/LS 4
150 x 50	QF/SE 62	QF/C 2	QF/FC 2	QF/CRS 6	QF/PR 62	QF/LS 2
150 x 75	QF/SE 63	QF/C 3	QF/FC 3	QF/CRS 6	QF/PR 63	QF/LS 3
150 x 100	QF/SE 64	QF/C 4	QF/FC 4	QF/CRS 6	QF/PR 64	QF/LS 4
150 x 150	QF/SE 66	QF/C 6	QF/FC 6	QF/CRS 6	QF/PR 66	QF/LS 6
225 x 100	QF/SE 94	QF/C 4	QF/FC 4	QF/CRS 9	QF/PR 94	QF/LS 4

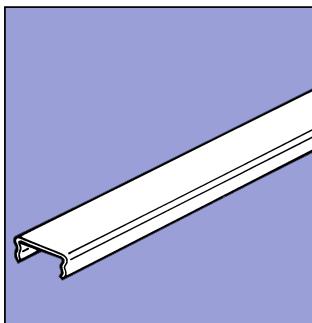
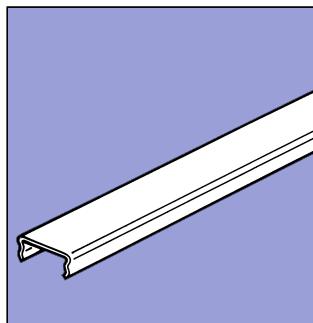
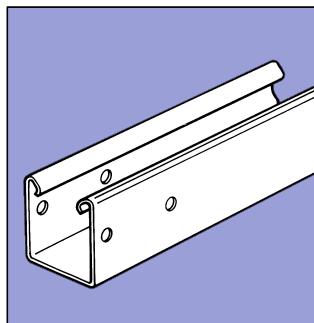
*2 Metre lengths available to order.

*Powder-coated finishes are available to suit customer requirements.

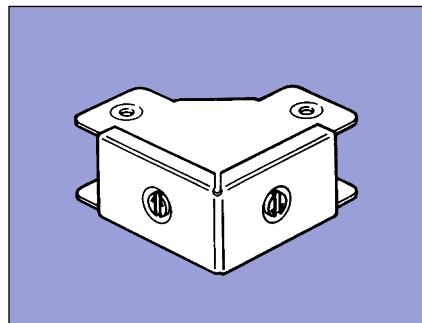
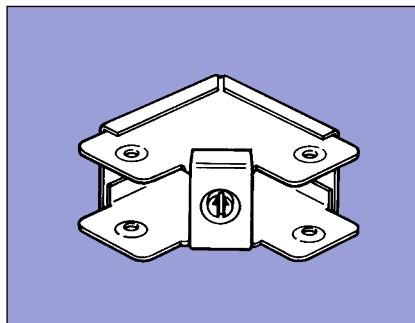
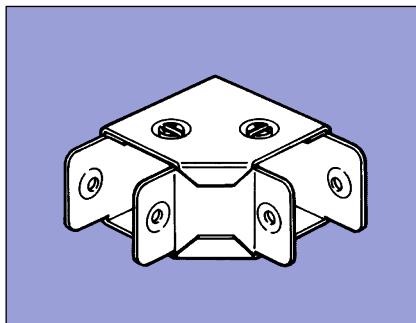
*Non gusset fittings and accessories are available.

Hangers are available with 11mm or 21mm holes.

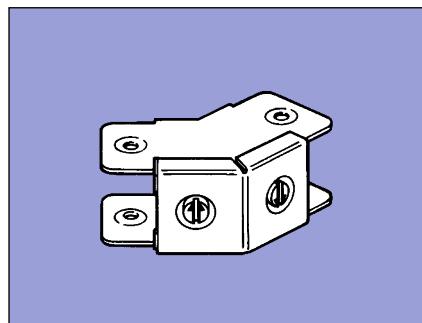
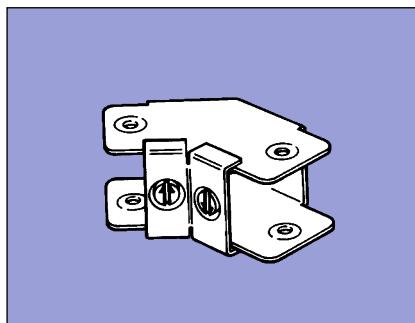
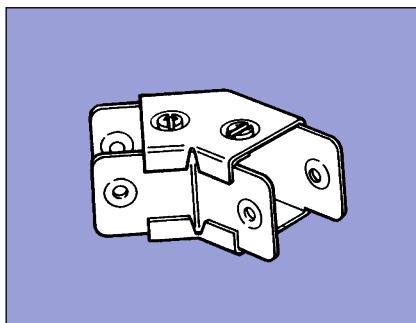
Manufactured from pre-galvanised sheet steel to BS EN 10142.



Dimensions mm	LIGHTING TRUNKING – BODY ONLY	METAL LID	P.V.C. LID	
50 x 50	3.5M long LT22/3.5 4.5M long LT22/4.5	5.0M long LT22/5.0 6.0M long LT22/6.0	2M long LT2/ML	2M long LT2/PVCL

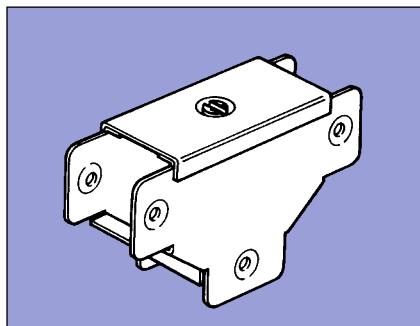
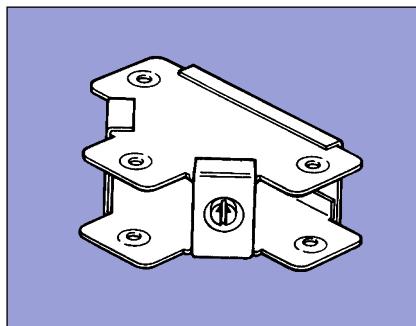
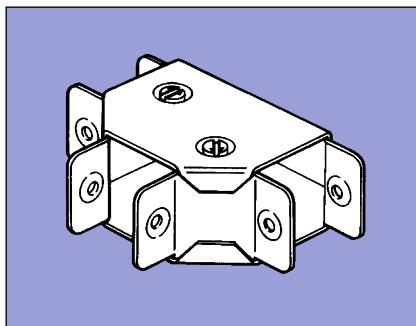


Dimensions mm	RIGHT ANGLE BEND – TOP LID	RIGHT ANGLE BEND – INSIDE LID	RIGHT ANGLE BEND – OUTSIDE LID
50 x 50	QF/RABT 22	QF/RABI 22	QF/RABO 22

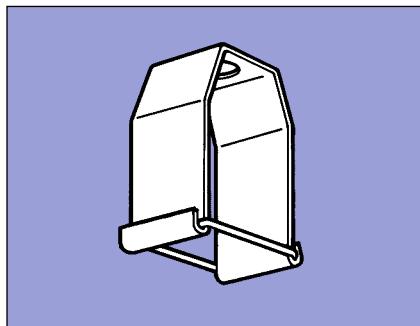
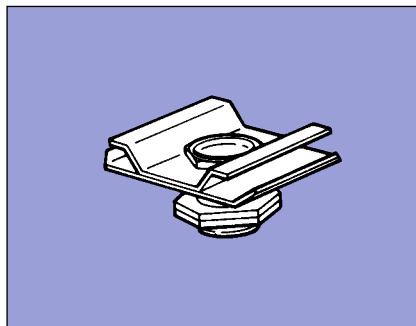
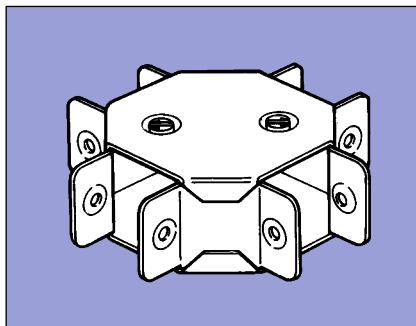


Dimensions mm	45 DEGREE BEND – TOP LID	45 DEGREE BEND – INSIDE LID	45 DEGREE BEND – OUTSIDE LID
50 x 50	QF/FFT 22	QF/FFI 22	QF/FFO 22

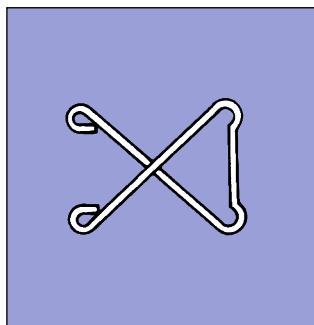
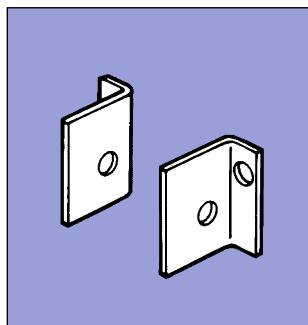
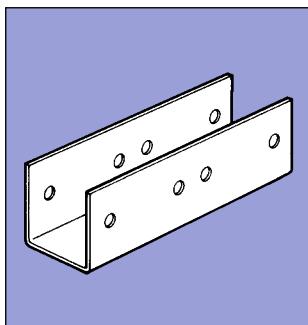
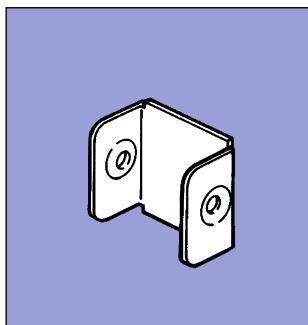
Product Code Example QF/RABT 22
i.e. Quick-Fix/Right Angle Bend Top 2" x 2".



Dimensions mm	TEE BEND – TOP LID	TEE BEND – INSIDE LID	TEE BEND – OUTSIDE LID
50 x 50	QF/TT 22	QF/TI 22	QF/TO 22



Dimensions mm	FOUR WAY BOX	SUSPENSION UNIT	HANGER
50 x 50	QF/FW 22	LT/SU 22	LT/H 22

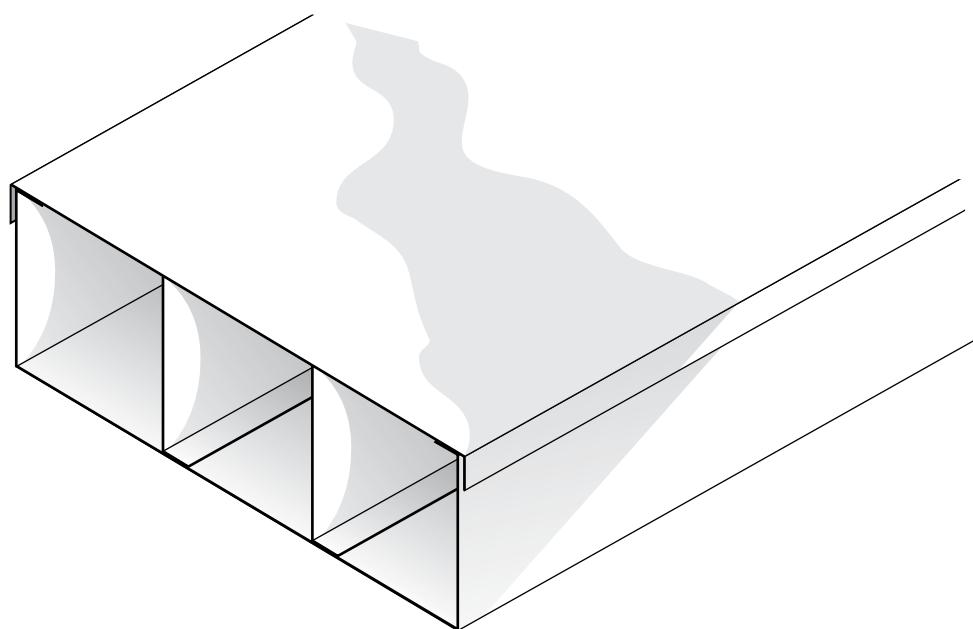


Dimensions mm	STOP END	COUPLER	FLANGED COUPLER	CABLE RETAINER
50 x 50	QF/SE 22	LT/SC 22 (Short) LT/LC 22 (Long)	QF/FC 22	QF/CRS 2

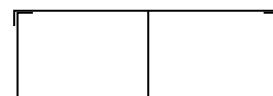
50 x 50mm Quick-Fix fittings are available for use with Lighting Trunking.

Hangers are available with 11mm or 21mm holes.

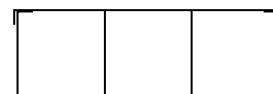
Manufactured from pre-galvanised sheet steel to BS EN 10142.

AVAILABLE IN QUICK-FIX

For 2 Compartment Trunking add QF/----/2
to the listed numbers on the previous pages.



For 3 Compartment Trunking add QF/----/3
to the listed numbers on the previous pages.



Multi Compartment Trunking is supplied with evenly spaced separators. Trunking with different sized compartments may be supplied subject to prior agreement.

Details must be confirmed in writing when ordering.

TRUNKING AND BENDS

"L" shaped separators are welded into position or can be supplied loose for fitting on site.

TEES AND INTERSECTIONS

Separators are supplied loose so that wiring can be laid into position. 50% of the wiring area is lost by the fitting of separators.

TRUNKING CAPACITY GUIDE

The following guide will help you select the correct size of trunking for the required number and size of cables in your installation. It has been prepared from Appendix 12 of the I.E.E. wiring regulations for Electrical Installations.

When cables are pulled into trunking, they experience drag from other cables and from the trunking itself. Using this guide to select the size of trunking for your cabling will ensure that an acceptable pulling force is required to install the cables, and that minimum damage to the insulation will occur. This is only a guide: and is designed for use with single core PVC insulated cables.

TO USE THIS GUIDE

- Calculate Capacity Unit by multiplying the number of cables by the Factor from table A.
- Use Capacity Unit to choose nearest size of trunking from table B.
- Remember that cables can cross over each other and that you may need space for future wiring. Consequently, select the next size up.

EXAMPLE			
NUMBER OF CABLES	CONDUCTOR CROSS SECTION MM ²	FACTOR (FROM A)	CAPACITY UNIT (FROM B)
50	1.5 stranded	8.1	405
40	2.5 stranded	11.4	456
20	6.0 stranded	22.9	458
		Total	1319

From Table B, The Capacity Unit of 1319 falls between 50 x 50mm and 75 x 50mm hence choose 75 x 50mm trunking.

TABLE A		
TYPE OF CONDUCTOR	CONDUCTOR CROSS SECTION	FACTOR
Solid	1.5	7.1
	2.5	10.2
Stranded	1.5	8.1
	2.5	11.4
	4	15.2
	6	22.9
	10	36.3
	16	42.9
	25	62.6
	35	95

TABLE B	
CAPACITY UNIT	DIMENSION OF TRUNKING MM X MM
738	75 x 25
993	100 x 25
1037	50 x 50
1555	75 x 50
2091	100 x 50
2371	75 x 75
3162	150 x 50
3189	100 x 75
4252	100 x 100
4743	150 x 75
9697	150 x 150

Note: For sizes and types of cables not included in the above tables A and B, calculate total cross section of cables and select trunking size so that not more than 45% of trunking is filled.

ORDERING PROCEDURES

1. Please contact our sales office to discuss product availability, delivery times and any commercial queries.
2. All telephone orders must be confirmed in writing and be clearly marked 'Confirmation Order'. Please order using the catalogue number and specify the finish required.
3. Invoices will reflect current ongoing discounts unless there is a valid special price. In such cases, these prices will only be available if the written order refers to special prices and refers to the quotation reference number.
4. Orders for items not usually held in stock must be placed in writing and may not then be cancelled.
5. Please refer to our current price lists for details of minimum carriage paid order values and any minimum order charges.
6. All orders and transactions are subject to our Conditions of Sale which may be obtained upon request.

QUALITY ASSURANCE PROCEDURES

All aspects of the operations of Barton Engineering are governed by detailed Quality Assurance Procedures. These are subject to regular independent audit who provide independent certification to confirm that they comply with the requirements of the International Standard ISO 9001.

CE MARKING

It is our policy that Barton Engineering products will be CE marked to confirm that they comply with the relevant directives. At the time of writing our best advice is that our ranges of Cable Protection Products will be classified within the Low Voltage Products Directive. We will therefore ensure that the CE marking is undertaken to comply with the necessary regulation.

No.	Page	No.	Page	No.	Page
CONDUIT FITTINGS AND ACCESSORIES					
R101	Couplings.....	11	R261	Adaptable Box, Plain	16
M103	Couplings, Inspection	11	R262	Adaptable Box, Knock-Outs	16
M105	Couplings, Earthing.....	11	M272	Loop in Box, Malleable Iron, Medium.....	9
F107	Nipples, Normal.....	11	R274	Loop in Box, Steel, Medium	9
F109	Nipples, 300mm.....	11	R280	Cover, Overlapping	10
M110	Flanged Couplers.....	11	R281	Cover, Light, Steel	10
M111	Flanged Couplers.....	11	R282	Cover, Heavy, Steel	10
F112	Lead Washers.....	12	M283	Cover, Heavy, Malleable Iron.....	10
F113	Neoprene Washers	12	M286	Cover, Ball and Socket, Malleable Iron	10
R114	Adaptors, Imperial/Metric	9	R287	Cover, Hook and Dome, Steel.....	10
R115	Adaptors, Metric/Imperial	9	M288	Cover, Female Dome, Malleable Iron	10
F116	Serrated Washers	12	R289	Cover, Female Dome, Steel	10
M121	Elbows, Solid.....	12	R290	Cover, Ball and Socket, Steel.....	10
M123	Elbows, Inspection, Channel.....	12	R294	Extension Ring.....	12
M131	Tees, Solid.....	12	M361	Box, Ceiling Rose.....	8
M133	Tees, Inspection, Channel.....	12	M362	Saddle, Hospital	14
R141	Bends.....	12	M363	Saddle, Distance.....	14
M145	Bends, Inspection	12	M370	Adaptor Ring	12
M181	Terminal Box	6	R381	Large Cover, Light, Steel.....	10
M182	Through Box.....	6	R382	Large Cover, Heavy, Steel.....	10
M183	Angle Box.....	6	F401	Gasket, Inspection Coupler	15
M184	Tee Box	6	F402	Gasket, Channel Inspection Elbow ..	15
M185	Intersection Box.....	6	F403	Gasket, Circular Inspection Elbow ..	15
M186	Back Outlet	6	F405	Gasket, Channel Inspection Tee ..	15
M187	Terminal and Back Outlet Box	6	F408	Gasket, Inspection Bend	15
M188	Through and Back Outlet Box.....	6	F409	Gasket, Small Circular Box	15
M189	Angle and Back Outlet Box.....	6	F410	Gasket, Large Circular Box	15
M190	Tee and Back Outlet Box	6	F415	Gasket, All Adaptable Box sizes ..	15
M191	Intersection and Back Outlet Box.....	6	R431	Saddle, Spacer Bar	14
M192	Tangent Through Box	6	F441	Saddle, Half.....	14
M193	Tangent Angle Box.....	6	R451	Saddle, Single	14
M194	Tangent Tee Box	6	F461	Crampets	14
M195	Branch Two Way Box	6	M471	Reducers	13
M196	Branch Three Way.....	7	M501	Loop, Male	11
M197	Twin Through Way Box	7	M502	Hook, Male.....	11
M211	Large Terminal Box	7	M503	Loop, Female	11
M212	Large Through Box	7	M504	Hook, Female	11
M213	Large Angle Box	7	F505	Circular Locknuts, Milled Edge	13
M214	Large Tee Box	7	F506	Copper Clip, Earthing	12
M215	Large Intersection Box	7	R507	Locknut, Light, Steel	13
M216	Large Back Outlet Box	7	M508	Locknut, Heavy, Malleable Iron.....	13
M217	Large Terminal and Back Outlet Box ..	7	M527	Plug, Malleable Iron.....	13
M218	Large Through and Back Outlet Box ..	7	F531	Bush, Brass, Short Male	13
M219	Large Angle and Back Outlet Box ..	7	F532	Bush, Brass, Long Male.....	13
M220	Large Tee and Back Outlet Box.....	7	F534	Bush, Brass, Female	13
M221	Large Intersection and Back Outlet Box.....	7			
M222	Large Tangent Angle Box	7			
M223	Large Tangent Tee Box	7			
M231	Terminal Deep Box.....	8			
M232	Through Deep Box	8			
M233	Angle Deep Box	8			
M234	Tee Deep Box	8			
M235	Intersection Deep Box	8			
M241	Terminal Extension Box	8			
M242	Through Extension Box	8			
M243	Angle Extension Box	8			
M244	Tee Extension Box	8			
M245	Intersection Extension Box	8			
SWITCH AND SOCKET BOXES					
BC14RE47mm	One Gang	19			
BC22RE47mm	Two Gang	19			
BC82RE35mm	One Gang	19			
BC92RE35mm	Two Gang	19			
TRUNKING					
QF/-	- Quick-fix System	21 – 23			
LT/-	- Lighting System	24 – 25			
Multi Compartment Trunking				26	

**STATEMENT TO PURCHASERS
AND PROSPECTIVE PURCHASERS**

1. Section 6 of this Act provides that manufacturers, designers, importers or suppliers of articles for use at work have a duty to ensure, so far, as is reasonably practicable, that the article will be safe and without risk to health *when properly used*. An article is not regarded as being 'properly used' if it is used *without regard to any relevant information or advice* relating to its use made available by the manufacturer, designer, importer or supplier.
2. Having regard to these provisions the following is given as a guide to the information which is readily available to you, in order that the obligations of all concerned may be met as fully as is reasonably practicable. This information relates to those products detailed in our Catalogue(s) or associated literature.
3. Information on the design, construction and installation of our products to ensure that so far as is reasonably practicable they are safe and without risk to health when properly used may be found in:
 - Relevant British Standard Specifications and Codes of Practice.
 - Regulations for Electrical Equipment of Buildings (published by the Institution of Electrical Engineers).
 - Catalogues and product leaflets of this Company.
 - Or may be obtained by specific request to the Company.
4. It is important that the products concerned should be *installed, commissioned and maintained by, or under the supervision of, competent persons in accordance with good engineering practice and:*
 - I.E.E. Regulations for the Electrical Equipment of Buildings.
 - Codes of Practice.
 - Statutory Requirements.
 - Any instructions specifically advised by the Company and, where appropriate, with particular reference to information marked on the product.
5. In accordance with the provisions of the Act, you are therefore requested to take such steps as are necessary to ensure that any appropriate information relevant to our products is made available by you to anyone concerned.
6. C.O.S.H.H. REGULATIONS 1988
Due to the nature of BARTON Products being of ferrous or non ferrous material supplied in either self colour, painted stove enamel or galvanised finishes, there are no substances hazardous to health involved with the finished products within the meaning given to that phrase in the regulations.
7. All BARTON Products are manufactured in accordance with the ENVIRONMENTAL PROTECTION ACT.

Our policy is one of continuous product improvement and hence we reserve the right to revise designs and specifications without prior notice.

Terms and Conditions of Trading

1. INTERPRETATION

1.1 (In these conditions)

- BUYER: means the person, firm or the company entering into the Contract to purchase the goods and/or Service from the Seller.
- CONDITIONS: means the standard terms and conditions of sale set out in this document and (unless the context otherwise requires) includes any special terms and conditions agreed in writing between the Buyer and the Seller.
- CONTRACT: means the contract for the purchase and sale of Goods and/or Services.
- DELIVERY DATE: means the earlier of the time of actual delivery of the Goods or, if the Goods are to be collected by the Buyer or the Buyer wrongfully fails to take delivery of the Goods, the date that the Seller notifies the Buyer that the Goods are ready for delivery or, as the case maybe, the Seller tenders delivery of the Goods or, if the Buyer wrongfully fails to allow the performance of the Services, the date that the Seller notifies the Buyer that it is in a position to perform the Services.
- GOODS: means the goods (including any installment of the Goods or any parts for them) which the Seller is to supply in accordance with these Conditions.
- SELLER: means LIBERTY BUILDING SOLUTIONS FZE.
- SERVICES: means the Services which the Seller is to supply in accordance with these Conditions.
- TOOLING: includes patterns, tooling & dies.
- WRITING: Includes telex, cable, facsimile transmission, electronic mail and comparable means of communication.

2. BASIS OF THE CONTRACT

2.1 These Conditions shall govern the Contract to the exclusion of any other terms and conditions.

3. ORDERS AND SPECIFICATION

- 3.1 The Buyer shall be responsible to the Seller for ensuring the accuracy of the terms of any order (including any applicable specification) and for giving the Seller any necessary information relating to the contract within a sufficient time to enable the Seller to perform the Contract. Where the Goods are to be supplied to the Buyer's specification, the Buyer warrants that the Goods are capable of production.
- 3.2 The quantity, quality and description of any specification for the Goods and/or the description of the Services shall be those set out in the Seller's quotation (if accepted by the Seller).
- 3.3 The Seller reserves the right to make any changes in the specification of the Goods or Services which are required to conform with any applicable safety or other statutory or legal requirements or, where the Goods or Services are to be supplied to the Seller's specification, which do not materially affect their quality or performance.
- 3.4 No Contract may be cancelled by the Buyer except with the agreement in writing of the Seller and on terms that the Buyer shall indemnify the Seller in full against all loss (including loss of profit), costs, damages, charges and expenses.
- 3.5 The Buyer shall indemnify and keep indemnified the Seller against any claim or liability in respect of any infringement of intellectual or industrial property rights resulting from compliance with the Buyer's instructions express or implied.
- 3.6 Drawing, illustration and Specifications prepared by or on behalf of the Seller in connection with the Contract shall remain the property of the Seller and shall not be communicated to third parties without the Seller's prior written consent.
- 3.7 The Seller's reserves the right to undertake credit references and may suspend delivery of Goods or performance of the Contract or any other contract with the Buyer, if such references are unsatisfactory.
- 3.8 Each performance or delivery schedule submitted by the Buyer shall constitute an order capable of acceptance by the Seller. If the Seller agrees that any such schedule shall not constitute an order in circumstances where it is reasonably necessary for the Seller to act in reliance upon such schedule so as to enable the Seller to perform the schedule in accordance with its terms if such schedule becomes an order accepted by the Seller, the buyer shall indemnify and keep the Seller indemnified all, costs, damages, charges and expenses arising from such reliance by the seller if such schedules does not become an order capable of acceptance by the Seller.

4. PRICE

- 4.1 The price shall be the Seller's quoted price, or where no price has been quoted or a quoted price is no longer valid, the price listed in the Seller's published price list current at the date of acceptance of the order. Where the Goods are supplied for export, the Seller's export price list shall apply in the absence of a price quoted by the Seller. All prices quoted are valid for 30 days or until earlier acceptance by the Buyer, after which time they may be altered by the Seller without notice.
- 4.2 The Seller reserves the right to increase the price to reflect any increase in the cost to the Seller which is due to any factor beyond the Seller's control, any change in delivery or performance dates, quantities or specifications which is requested by the Buyer, or any delay caused by any instructions of the Buyer to give the Seller adequate information or instructions.
- 4.3 All prices are given by the Seller on an ex-works basis, unless otherwise confirmed in writing by the Seller.
- 4.4 The price is exclusive of any applicable value added tax, which the Buyer shall be additionally liable to pay to the Seller.
- 4.5 The costs of pallets and returnable containers will be charged to the Buyer in addition to the price but full credit will be given to the Buyer provided they are returned undamaged to the Seller within 28 days of the date of delivery.

5. TERMS OF PAYMENT

- 5.1 The Seller shall be entitled to invoice the Buyer for the price on or at any time after the Delivery Date.
- 5.2 The Buyer shall pay the price without any deduction or set-off (save as set out in this condition 5.2) on or before the last day of the month following the Delivery Date and the Seller shall be entitled to recover the price, notwithstanding that delivery may not have taken place and the property in the Goods has not passed to the Buyer and/or the Services have not been performed. The time of payment of the price shall be of the essence of the contract.
- 5.3 If the Buyer fails to make any payment on the due date then, without prejudice to any other right or remedy, the Seller shall be entitled to;
- 5.3.1 suspend all or any further deliveries to the Buyer or suspend the provision of all or any services made under that or any other contract with the Buyer and in such event the Buyer shall not be released from its obligations to the Seller under that or any other contract or cancel the contract or any other contract with the Buyer, and the Seller shall have the right to claim damages from the Buyer for breach of contract;
- 5.3.2 appropriate any payment made by the Buyer to such part of the Contract or the Goods (or the Goods supplied under any other contract between the Buyer and the Seller) as the Seller may think fit (notwithstanding any purported appropriation by the Buyer); and
- 5.3.3 charge the Buyer interest (both before and after and judgment) on the amount unpaid, at the rate of 12% per annum accruing daily, until payment in full is made.
- 5.4 The Seller may without notice set off any sums from time to time owed to the Buyer in or towards the satisfaction of all and any liabilities of the Buyer to the Seller whether or not under this Contract.
- 5.5 The Seller shall have a general lien over all goods and property of the buyer (whether worked on or not) in the possession of the Seller for all unpaid debts due from the Buyer and the Seller reserves the right upon the expiration of fourteen days written notice to dispose of such good or property and to apply the proceeds of sale (net of costs of sale) towards the payment of such debts.

6. DELIVERY AND PERFORMANCE

- 6.1 The Buyer shall be responsible for the unloading of Goods and where the Seller or its employees or agents carries out or assist the Buyer in such unloading. The Buyer shall indemnify and keep indemnified the Seller against all liabilities including without limitation all loss, costs, damages, charges and expenses from such unloading.
- 6.2 Any dates quoted for delivery of the Goods or performance of the Service are approximate only and the Seller shall not be liable for any delay howsoever caused. The Goods may be delivered and/or Services maybe performed by the Seller in advance of the quoted delivery date upon giving reasonable notice to the buyer.
- 6.3 The Seller reserves the right to under or over-deliver the order quantity of any Goods by up to 10% more or less without any adjustments in the price, and the quantity so delivered shall be deemed to be the quantity ordered.
- 6.4 Where the Goods are to be delivered or Services performed in installments, each delivery or performance shall constitute a separate contract and failure by the Seller to deliver or perform any one or more of the installment in accordance with these Conditions or any claim by the Buyer in respect of any one or more installments shall not entitle the Buyer to treat the Contract as a whole as repudiated.
- 6.5 If the Seller fails to deliver the Goods (or any installment) or perform any Services (or any installment) for any reason other than any cause beyond the Seller reasonable control or the Buyer's fault, and the Seller is accordingly liable to the Buyer, the Seller's liability shall be limited to the excess, if any, of the reasonable costs to the buyer (in the cheapest available market) of similar goods and/or services to replace those not delivered over the price of the Goods and/or Services.
- 6.6 If the Buyer fails to take delivery of the Goods or to allow performance of the Services or fails to give the Seller adequate delivery or performance instructions at the time stated for delivery or performance (otherwise than by reason of any cause beyond the Buyer's reasonable control or by reason of the Sellers fault) then, without prejudice to any other right or remedy available, the Seller may;
- 6.6.1 store the Goods until actual delivery and charge the Buyer for the reasonable cost of storage, including insurance;
- 6.6.2 after the expiration of 3 months from the Delivery Date to dispose of the Goods in such manner as the Seller may determine and;
- 6.6.3 suspend any further delivery of Goods and/or goods and/or performance of the Services and/or services under the Contract or any other contract.
- 6.7 The Services shall be performed at the Seller's premises.

7. RISK AND PROPERTY

- 7.1 Risk of Damage to or loss of the Goods shall pass to the Buyer on the Delivery Date.
- 7.2 The property in the Goods shall not pass to the Buyer until the Seller has received in cash or cleared funds payment in full of the price of the Goods and all other goods sold or agreed to be sold by the Buyer under any other contract.
- 7.3 Until such time property in the Goods shall not pass to the Buyer, the Seller shall be entitled at any time to require the Buyer to deliver up the Goods to the Seller and, If the Buyer fails to do so forthwith, to enter upon any premises of the Buyer or any third party where the Goods are stored and repossess the Goods and for the purpose the Buyer hereby authorizes and license the Seller, its officers, employees and agents to enter upon any land or building upon which the Goods are situated to recover those goods, and the Buyer shall indemnify the Seller against all cost, damages, charges and expenses in such regard.

8. WARRANTIES AND LIABILITIES

THE BUYER'S ATTENTION IS IN PARTICULAR DRAWN TO THE PROVISIONS OF THIS CLAUSE 8.

- 8.1 The Seller warrants that the Goods will be free from defects in material and workmanship for a period of 3 months from the Delivery Date and that the Services will be performed with reasonable care and skill.
- 8.2 The above warranties are given by the Seller subject to the following conditions:
- 8.2.1 The Seller shall be under no liability in respect of any failure or defect arising from any Tooling, drawing, design, or specification supplied by the Buyer;
- 8.2.2 The Seller shall be under no liability in respect of any defect or failure arising from fair wear and tear, willful damage, negligence, abnormal working condition, failure to follow the Seller's instructions (whether oral or in writing), misuse or alteration or repair of the Goods without the Seller's prior approval;
- 8.2.3 If the total price has not been paid by the due date, the Seller shall be under no liability until the total price has been paid.
- 8.2.4 The above warranties do not extend to parts, materials or equipment not manufactured by the Seller, in respect of which the Buyer shall only be entitled to the benefit or any such warranty or guarantee as it given by the manufacturer to the Seller;
- 8.2.5 The Seller shall under no liability in respect of any failure or defect is within reasonable commercial tolerances.
- 8.3 Subject as expressly provided in these Conditions, all warranties, conditions and other terms implied by statute or law are excluded to the fullest extent permitted by law.
- 8.4 Any claim by the Buyer which is based on any defect in the quality or condition of the Goods, any failure to exercise reasonable care and skill or any under or over-delivery of the Goods shall, whether or not delivery is refused by the Buyer, be notified to the Seller within 3 days from the Delivery Date or, where the defect or failure was not apparent on reasonable inspection, within a reasonable time after delivery of the defect or failure or in any event within 7 days of discovery. If delivery is not refused, and the Buyer does not notify the Seller, the Seller shall have no liability for such defect or failure, and the Buyer shall be bound to pay the price as if the Contract has been performed in accordance with its terms.
- 8.5 Where any valid claim in respect of any of the Goods which is based on any defect in the quality or condition of the Goods or any failure to exercise reasonable care and skill is notified to the Seller in accordance with these Conditions, the Seller shall be entitled to replace the Goods (or part in question) or to re-perform the Services free of charge or, at the Seller's sole discretion, refund to the Buyer the price of the Goods (or a proportionate part of the price) but the Seller shall have no further liability to the Buyer.
- 8.6 The Seller shall not be liable to the Buyer by reason of any representation, or any implied warranty, condition or other term, or any duty of law, or under the express terms of the contract, for any consequential loss or damage (whether for loss of profit, product recall or otherwise) which arise of or in connection with the supply of the Goods and/or the Services or their use or resale by the Buyer and the entire liability of the Seller under or in connection with the Contract shall not exceed the price under the Contract, except as expressly provided in these Conditions.
- 8.7 The Seller shall not be liable to the Buyer or to be deemed to be in breach of the Contract by reason any delay in performing, or any failure to perform, any of the Seller's obligation, if the delay or failure was due to any cause beyond the Seller's reasonable control.

9. INDEMNITY

THE BUYER'S ATTENTION IS IN PARTICULAR DRAWN TO THE PROVISIONS OF THE CLAUSE.

- 9.1 The Buyer shall take or procure the taking of all such steps as may be necessary to ensure the safety of the Seller's employees, agents and contractors or any premises at which the Service is to be provided without limitation, notifying such representatives of any relevant hazards.
- 9.2 The Buyer shall indemnify and keep indemnified the Seller, its officers, employees agents and sub-contractors against any loss or damage to any property or injury or death of any person caused by any negligent act or omission or willful misconduct of the Buyer, its employees agents or sub-contractors, including all and any costs and expenses relating thereto.

10. TOOLING

- 10.1 Any Tooling supplied by the Buyer shall remain the property of the Buyer at the Buyer's risk. The Buyer shall be responsible for the repair and maintenance of such Tooling. The Seller shall not use such Tooling in connection with any contract with a third party without the Buyer's prior consent in Writing.
- 10.2 All tooling used, manufactured or procured in connection with contract and which is not supplied by the Buyer shall be the property of the Seller.
- 10.3 All any intellectual and industrial property rights comprised in any Tooling shall vest in the party owning such Tooling.
- 10.4 The Seller reserves the right to charge the Buyer for the cost of storage of the Buyer's Tooling and to require the Buyer to remove such Tooling from the Seller's premises upon not less than 3 months notice in Writing.

11. INSOLVENCY OF BUYER

11.1 This clause applies if;

- 11.1.1 The Buyer makes any voluntary arrangement with its creditors or become subject to an administration or similar order (for being an individual firm) become bankrupt or (being a company) goes into liquidation, otherwise than for the purpose of amalgamation or reconstruction; or
- 11.1.2 An encumbrancer takes possession, or a receiver is appointed, of the Buyer's undertaking or any of its property or assets; or
- 11.1.3 The Buyer ceases, or threatens to cease, to carry on business; or
- 11.1.4 The Seller reasonably apprehends that any of the events mentioned above is about to occur in relation to the Buyer and notifies the Buyer accordingly.
- 11.2 If this clause applies then, without prejudice to any other right or remedy available to the Seller, the Seller shall be entitled to cancel the Contract or suspend performance and/or any further deliveries under the Contract without any liability to the Buyer, and if the Goods have been delivered and/or Services performed, but not paid to, the price shall become immediately due and payable.

12. EXPORT TERMS

- 12.1 The Buyer shall be responsible for complying with any legislation and regulation governing the importation of the Goods into the country of destination and for the payment of any duties thereon.
- 12.2 Unless otherwise agreed in Writing between the Buyer and the Seller, the Goods shall be delivered ex-works.
- 12.3 The Buyer shall be responsible for arranging for testing and inspection of the Goods at the Seller's premises before shipment. The Seller shall have no liability for any claim in respect of any defect which would be apparent on inspection and which is made after shipment, or in respect of any damage during transit.
- 12.4 Payment of all amounts due to the Seller shall be made by irrevocable letter of credit opened by the Buyer in favor of the Seller and confirmed by the Seller's bank in the United Arab of Emirates, or, if the seller has agreed on or before acceptance of the buyer's order to waive the requirement, by acceptance by the Buyer and delivery to the Seller of a bill of exchange drawn on the Buyer payable 30 days after sight of the order of the Seller at such bank as may be specified on the bill of exchange.

13. GENERAL

- 13.1 The Buyer shall not be entitled to assign the whole or any part of the Contract without the prior written consent of the Seller.
- 13.2 No waiver by the Seller of any breach of the Contract by the Buyer shall be considered as a waiver of any subsequent breach of the same or any other provision.
- 13.3 If any provision of these Conditions is held by any competent authority to be invalid or unenforceable in whole or in part the validity of the other provisions of these Conditions and the remainder of the provision in question shall not be affected thereby unless such provisions goes to the root of the Contract.
- 13.4 The conditions shall constitute the entire agreement in relation to the subject matter and no modification or waiver thereof shall be valid unless made in Writing expressly for the purpose and signed by an authorized officer of the Seller and of the Buyer provided that nothing in these conditions shall exclude or limit liability for fraud.
- 13.5 The contract shall be governed by the laws applicable in the Emirates of Dubai and the Buyer agrees to submit the non-exclusive jurisdiction of the Dubai courts.



BARTON Engineering produce and supply the premium quality BARTON brand of UK manufactured hot dipped galvanised steel conduit, all main associated electrical cable management systems and a wide range of accessories and fittings. BARTON provides high performance competitive products and worldwide solutions. The range includes:

- BS31/4568/50086/61386 conduit and accessories
 - Black Enamel
 - Pre galvanised
 - Hot dipped galvanized
 - Stainless steel
- BS4678 steel trunking and fittings
- BS4662 switch and socket boxes
- BSEN 61386 flexible steel conduit (bare flex, pvc covered, low smoke zero halogen and liquid tight)
- Cable trays, underfloor boxes, electrical enclosures and other electrical protection systems
- US specification EMT/IMC/RMC conduit and accessories.

BARTON products are installed in the most demanding applications and environments where public safety is paramount. Examples include mass transportation (airport terminals, concourses, airside and off field ancillary buildings, railway, light metro, underground), places of education (schools, colleges, university, training establishments), healthcare (hospitals, clinics, research centers), leisure (shopping malls, hotels, tall and super tall towers), sporting facilities (sports stadiums, Olympic villages, training grounds) and places of worship.

In 2015, Liberty House Group acquired the business and assets, including all worldwide IPR and trademarks of Barton and today Barton Engineering is an operating division of Liberty Precision Tubes, part of Liberty Tubular Solutions.

Liberty House Group is an expanding international business, specialising in trading, manufacture and distribution of steel and advanced engineering products. Operating from four strategically positioned financial hubs in London, Dubai, Singapore and Hong Kong, the Group has sites in Europe, Africa, the Far and Middle East, Australia and North America. Please visit www.libertyhousegroup.com.



Located in Jebel Ali Free Zone, Liberty building Solutions FZE is the exclusive BARTON service agent throughout the Middle and Far East, Africa and Australasia region. A highly focused team operate the central BARTON service centre in UAE providing customers with stock, logistics, technical and commercial support for the entire range. All product information is provided in good faith and is subject to the Terms and Conditions of Trading.

Please contact us on:

Liberty Building Solutions FZE
Jebel Ali Free Zone
PO Box 263871
Dubai, UAE
E: sales.lbs@libertyhg.com
T: +971 4 8864344
W: www.libertybuildingsolutions.com

Barton Engineering
Popes Lane
Oldbury
West Midlands, UK
B69 4PF
www.libertyhousegroup.com

Genuine Barton
Genuine Quality
Genuine Reputation
Accept Nothing Less

