

Material Submittal for BARTON

PROJECT

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

CLIENT

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

CONSULTANT

XXXXXXXXXXXXXXXXXXXXXXXXXXXX.

MAIN CONTRACTOR

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

SUPPLIER

SMART SENSE SUPPLIES ME FZE

Material Submittal for Barton GI Conduit & Accessories





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REPLIES TO CONSULTANT COMMENTS



Company Profile



SMART SENSE SUPPLIES ME FZE

LIGHTING / WIRES & ARMoured CABLES / ELECTRICAL ACCESSORIES

AMBER GEM TOWER,
S1, WAREHOUSE, 17TH STREET
BLOCK E1, OFFICE NO. 1902,
UMM RAMOOL, RASHIDIYA,
OPPOSITE TO DUBAI ISLAMIC BANK
04 3581336

LANDLINE:

AJMAN FREE ZONE, UAE
MOBILE: +971 (0) 505439933,
565256961

MOBILE: +971 (0)

EMAIL:

enquiry@smartsense.aisa

LANDLINE: 04 3581336,

WEBSITE: www.smartsense.aisa

EMAIL: amit@smartsensesupplies.me

WEBSITE: www.smartsense.aisa

Smart Sense Supplies ME FZE with vast years of experiences, the SHRI LED brand of lighting, offering a “one stop shop” for trade and retail accessories. Smart Sense, supplying high efficiency, energy saving LED luminaires to the trade and projects market.

Our reputation is based on the reliability and functionality of our innovative products. By offering market leading warranties, technical support, dedicated customer service and marketing backup, we aim to make it easy for customers to specify and install sustainable lighting. Smart Sense believes that we have a responsibility to care for and protect the environmental performance across all our

manufacturing and other business activities, continually looking for new methods and materials to provide environmentally friendly solutions.

PRODUCTS IN OUR RANGE

LED LIGHTING

We provide commercial and domestic lighting solutions, using energy saving and environmentally friendly LED lighting. Established in 2013, to address the rapidly growing LED lighting market, smart sense has rapidly established itself as one of the leading brands for professional lighting in the UAE. It continues to innovate and regenerate its product the most efficient and comprehensive range of lighting solutions.

- Comprehensive product range, servicing all recognized channels and sectors.
- Dedicated distribution team supported by after sales and customer service functions.
- Experienced specification team with national coverage.
- Interior lighting, including panels, down lights, battens and high bay.
- Exterior lighting, including floodlights, bulkhead, road lanterns and bollards.
- Retrofit lamps and tubes, including replacements for existing light fixtures.

We represent the following brands:



ARMoured/CABLE/PANEL/HOUSING WIRES & CABLES

We represent renowned manufactures from around the world to offer the best match of customer' s expectations based on their requirements.

We represent the following brands:

MADE IN UAE:



MADE IN INDIA:



SWITCH GEAR & DISTRIBUTION BOARD:

We represent renowned manufacturers from around the world to offer the best match of customer' s expectations based on their requirements.

We offer the products like:

- MCB
- ELCB
- ISOLATORS
- MCCB
- ACB

We represent the brands like, but not limited to,



SWITCH & SOCKETS:

We represent the brands like,



CABLE TRAY & SLOTTED CHANNELS:

We represent the brands like,



LUGS & GLANDS:

We represent the brands like,



CONDUIT & CONDUIT FITTING:

We represent the brands like,



PVC FLOOR BOX:

We represent the brands like,



DAVIS®

Schneider
Electric

legrand®

ELECTRICAL & TEFLONE TAPE:

We represent the brands like,



3M



GI CONDUIT ACCESSORIES:

We represent the brand like,

caparo
MIDDLE EAST

MARUICHI
STEEL TUBE LTD.

FANS (CEILING/WALL/VENTILATION) :

We represent the brands like,



Panasonic

EARTHLING:

We represent the brands like,

furse



RUBBER CABLE:

We represent the brands like,



POWER SUPPLY/ STRIPS/ MODULES:





Trade license And ISO Certificate

دولة الإمارات العربية المتحدة

United Arab Emirates

منطقة عجمان الحرة
Ajman Free Zone



General Trading License

LICENSE NO.	15228	15228	رقم الرخصة
LICENSEE	Amit Mahendra Shrimankar	اميت ماهيندرا شريمانكار	صاحب الرخصة
TRADE NAME	Smart Sense Supplies Middle East - F.Z.E	سمارت سينس ميديايلز ميديايلز - م.م.ح	الاسم التجاري
ACTIVITY	General Trading Import & Export	تجارة عامة - استيراد و تصدير	النشاط
LEGAL STATUS	Free Zone Entity - F.Z.E	مؤسسة منطقة حرة - م.م.ح	الشكل القانوني
ADDRESS	B.C. 1302163	B.C. 1302163	العنوان
MANAGER	Amit Mahendra Shrimankar	اميت ماهيندرا شريمانكار	المدير
Establishment Date	July 26, 2015	July 26, 2015	تاريخ التأسيس
Expiry Date	July 25, 2022	July 25, 2022	تاريخ الانتهاء

منطقة عجمان الحرة
Ajman Free Zone



Approved electronic document issued from Ajman Free Zone
Document Reference no.: 569982-LdFl-X4PA-xyYk
To authenticate the letter please visit the below website and enter the
above document reference number

وثيقة إلكترونية معتمدة وصادرة بنون توقيع من منطقة عجمان الحرة
رقم الوثيقة المستندة: 569982-LdFl-X4PA-xyYk
للتحقق من الوثيقة يرجى زيارة الموقع ادناه وادخل رقم الوثيقة الظاهر اعلاه

<https://eportal.secure.force.com/Documents/>

Ajman Free Zone
منطقة عجمان الحرة

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2015

This is to certify that:

Liberty Precision Tubes Ltd
Part of Liberty Tubular Solutions
Popes Lane
Old
bury
B69
4PF
United Kingdom

Holds Certificate Number:

FS 657067

and operates a Quality Management System which complies with the requirements of ISO 9001:2015 for the following scope:

The manufacture of electrical resistance welded and cold-formed section tubes for the automotive, mechanical and general engineering purposes and the manufacture of stainless steel tube to customer specifications.

The manufacture of conduit tube and supply of Barton® cable management systems including trunking, cable tray, conduit tube and fittings, conduit accessories, electrical enclosures, switch and socket boxes and the supply of Longmore conduit tube.



For and on behalf of BSI:

Andrew Launn, EMEA Systems Certification Director

Original Registration Date: 2016-06-22

Effective Date: 2017-06-19

Latest Revision Date: 2018-01-18

Expiry Date: 2020-06-18



Page: 1

...making excellence a habit.™

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract. An electronic certificate can be authenticated [online](#).

Printed copies can be validated at www.bsigroup.com/ClientDirectory

Information and Contact: BSI, Kitemark Court, Davy Avenue, Know hill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000 BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK. A Member of the BSI Group of Companies.



Schedule of Items

S1, Warehouse, 17th Street Umm Ramool, Rashidiya, Landline: 04 3581336, Mobile: +971 (0) 505439933,
Email: enquiry@smartsense.aisa Website: www.smartsense.aisa



Schedule of Supply for Conduit, Fittings & Accessories

Sl.no:	Item Description	Catalogue Ref. No:	Unit	Page no:
GI Conduit Class 4 finish Hot Dipped Galvanized				
1	20, 25, & 32mm GI Conduits (L=3.75m) Hot dipped Galvanized to Class 4 Finish.	Tube	Length	4
Boxes –Circular, Small				
1.	20 & 25mm Terminal , small, Malleable iron	M181	Nos	6
2.	20 & 25mm Through , small, Malleable iron	M182	Nos	6
3.	20 & 25mm Angle , small, Malleable iron	M183	Nos	6
4.	20 & 25mm Tee , small, Malleable iron	M184	Nos	6
5.	20 & 25mm Intersection , small, Malleable iron	M185	Nos	6
Adaptable Box				
1	AD BOXPLAIN	R261	Nos	16
Covers –Circular small				
1.	20 & 25mm Cover, Light, Loose, No Screws	R281	Nos	10
Coupling				
1.	20,25 & 32mm Coupling Flanged	M110/M11	Nos	11
2	20,25 & 32mm Coupling, Solid	R101	Nos	11
Elbows				
1.	20, 25 & 32mm Solid	M121	Nos	12
2.	20, 25 & 32mm Bends Normal Tee	M131	Nos	12



	Bushes			
1.	20, 25 & 32mm Bush short male	F531	Nos	13
2.	20, 25 & 32mm Bush Long male	F532	Nos	13
	Locknuts			
1	20, 25mm & 32mm Locknut, Hexagon Heavy	M508	Nos	13
2	20, 25mm & 32mm Locknut, Circular, Milled Edge	F505	Nos	13
	Saddles			
1.	20, 25 & 32mm Saddle, Distance M363	M363	Nos	14
2.	20, 25 & 32mm Saddle, Spacer Bar R431	R431	Nos	14
	Gaskets			
1.	Rubber Gaskets for Box Small Circular	F409	Nos	15



COMPLIANCE STATEMENT

2.4.2 Three Compartment Trunking

The trunking shall have 3 compartments within its profile with provision for an interlocking extension trunking compartment. The central compartment shall carry power cables and shall be in a position to accommodate boxes to mount wiring accessories. The dimensions of the system shall be 212x50mm or equivalent and the profile shall be as selected by the engineer.

The System shall be modular to the extent that covers and bases are supplied separately. Covers for the central section shall be straight, while the covers for the bottom and top sections shall be curved or square.

The trunking should be such that all electrical energy requirements can be satisfactorily contained and visually coordinated with the system, it should also allow heavy concentration and mixture of outlets possibly requiring changes to their location at a later date. The system must have all accessories either mains or ELV positioned adjacent to one another.

The end caps and couplers of the system shall be manufactured in one piece to facilitate a neat and easy installation. The Main carrier shall be predrilled at 100mm centers for ease of fixing. All internal and external corners shall be a one piece construction with a clip on cover and a moulded corner carrier.

Boxes shall be available in two depths; 25mm and 35mm. The appropriate box shall be used for installation of Power and Data/Telecom Accessories.

Carries, extensions, covers and cable dividers shall be manufactured from extrusion process, while the corners, couplers, corner covers, accessory boxes and other components shall be manufactured by injection moulding.

The extruded components shall have a semi gloss finish and the moulded components shall have a compatible finish.

2.5 CONDUITS/TRUNKING AND FITTINGS

2.5.1 Materials

COMPLY PROPOSING BARTON (HEAVY GAUGE WELDED) GI CONDUITS AND ACCESSORIES HOT DIPPED GALVANIZED INSIDE AND OUTSIDE, CLASS 4 FINISH CONFORMS TO BS EN 61386

- A. Surface conduits at parking levels and Roof shall be heavy gauge hot dipped galvanized after fabrication rigid steel Class 4 manufactured in accordance with BS 4568 Part 1.
- B. All conduits installed above false ceiling, embedded in concrete, plaster and screed unless otherwise specified shall be very heavy gauge high impact PVC type, minimum 1.7 mm wall thickness manufactured in accordance with BS 4607 and BS 6099.
- C. Use flexible steel conduit with ground conductor for final connections to motors. Lengths shall not exceed 500 mm.

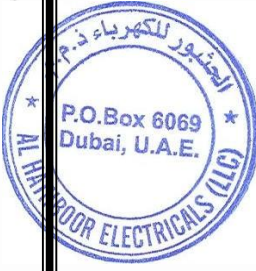
CONTRACTOR'S SCOPE

CONTRACTOR'S

CONTRACT DOCUMENT

Residential Building



- 
- D. All metal cable trunking shall be manufactured from sheet steel in accordance with BS 4678, galvanized to class 3. Body and cover thickness shall be as per BS 4678 Part1.
- E. Protection against corrosion shall be hot dip zinc coating after fabrication.
- F. All conduit and Trunking in unconditioned and unfinished areas e.g. plant rooms, electrical rooms, etc. shall be painted with one coat of metal primer after installation.

NOT PART OF THIS SUBMITTAL

COMPLY &

2.6 OUTLET BOXES

2.6.1 Materials

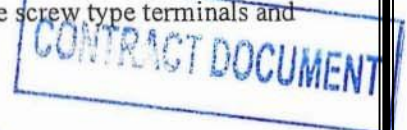
- A. Outlet boxes shall be manufactured of galvanized sheet steel, unless otherwise specified.
- B. Use metal clad weatherproof boxes outdoors or in damp locations.
- C. Use metal clad boxes where surface mounted in unfinished areas.
- D. Ceiling boxes shall be 75 mm circular or square, and 50mm deep complete with fittings where required to support fixtures.
- E. Outlet boxes in walls, ceilings or floors shall be of an approved type suitable for the construction.
- F. Provide gang boxes at locations where more than one device is to be mounted.
- G. Provide combination boxes with barriers for wiring of more than one system.
- H. Provide panel mounted fixing frames where outlet boxes are installed in paneling.
- I. Brass earth lead shall be provided for the outlet box to allow connection of earth wire.
- J. Outlet box shall be of adjustable grid type. k) All circular PVC boxes where used to support light fittings shall be provided with steel insert clips.

2.7 PULL BOXES

2.7.1 Materials

- A. Junction and pull boxes shall be sized to accommodate the conduits indicated and to facilitate pulling in the conductors required. Minimum depth shall be 50mm.
- B. Junction and pull boxes shall be of steel with covers attached by screws and shall be provided with earth terminal and screws.
- C. All junctions on lighting, power, signaling, communications, alarms and control wiring shall be provided with terminal strips. Terminal strips shall have screw type terminals and cable identification strip.

Residential Building



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Product List

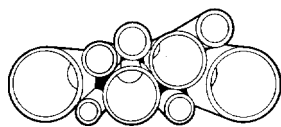
S1, Warehouse, 17th Street Umm Ramool, Rashidiya, Landline: 04 3581336, Mobile: +971 (0) 505439933,
Email: enquiry@smartsense.aisa, Website: www.smartsense.aisa

- 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.



BS 4568/BS EN 50086/ BS EN 61386 Class 4 finish HOT DIPPED GALVANISED INSIDE & OUTSIDE 3.75 metre lengths	External Diameter	No. of lengths per bundle	No. of bundles per lift	Metres per lift	Approx. weight per lift Tonnes
	20mm	8	50	1500	1.16
	25mm	8	40	1200	1.17
	32mm	4	41	615	0.80
BS 31 Class 4 finish HOT DIPPED GALVANISED INSIDE & OUTSIDE 3.75 metre lengths	1½"	4	21	315	0.54
	2"	4	21	315	0.85
PRE-GALVANISED INSIDE & OUTSIDE 3.75 metre lengths	20mm	8	50	1500	1.09
	25mm	8	40	1200	1.11
BS 4568/BS EN 50086/ BS EN 61386 Class 2 finish BLACK ENAMELLED INSIDE & OUTSIDE 3.75 metre lengths	20mm	8	50	1500	1.16
	25mm	8	40	1200	1.17
	32mm	4	41	615	0.80
BS EN 61386 Class 4 finish HOT DIPPED GALVANISED INSIDE & OUTSIDE 3.75 metre lengths	20mm	8	50	1500	1.06
	25mm	8	40	1200	1.07
	32mm	4	41	615	0.73

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.

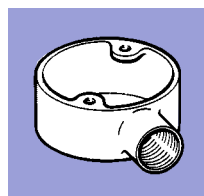
Length of run Metres	CONDUIT DIAMETER, MM															
	16	20	25	32	16	20	25	32	16	20	25	32	16	20	25	32
	Straight				One bend				Two bends				Three bends			
1	Covered by Tables 1 and 2				188	303	543	947	177	286	514	900	158	256	463	818
1.5					182	294	528	923	167	270	487	857	143	233	422	750
2					177	286	514	900	158	256	463	818	130	213	388	692
2.5					171	278	500	878	150	244	442	783	120	196	358	643
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				

Table 4

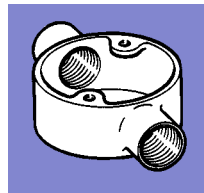
Conduit factors
for runs
incorporating
bends

BOXES - CIRCULAR, SMALL

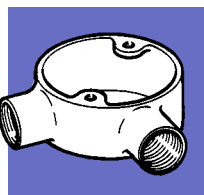
Material: Malleable Iron
 Finishes: Black Enamel, Hot Dipped Galvanised
 60.3mm Internal Diameter
 20mm Boxes Minimum 25mm Deep
 25mm Boxes Minimum 28mm Deep
 Tapped M4 at 50.8mm centres.
 With tapped hole in base for earthing screw.
 Supplied without covers or fixing screws unless ordered.

**Terminal No. M181**

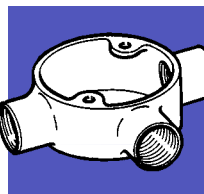
Size	20mm	25mm
Standard Pack Qty	10	10

**Through No. M182**

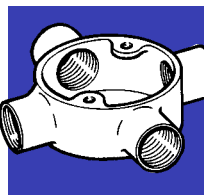
Size	20mm	25mm
Standard Pack Qty	10	10

**Angle No. M183**

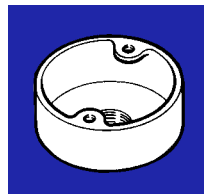
Size	20mm	25mm
Standard Pack Qty	10	10

**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**

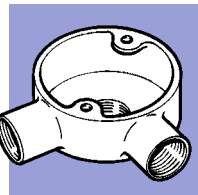
Size	20mm	25mm
Standard Pack Qty	10	10

**Terminal and Back Outlet No. M187**

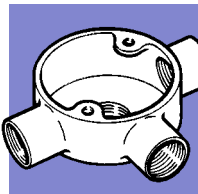
Size	20mm	25mm
Standard Pack Qty	10	10

**Through and Back Outlet No. M188**

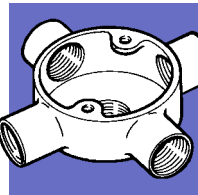
Size	20mm	25mm
Standard Pack Qty	10	10

**Angle and Back Outlet No. M189**

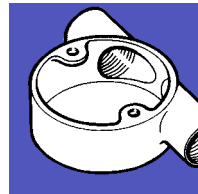
Size	20mm	25mm
Standard Pack Qty	10	10

**Tee and Back Outlet No. M190**

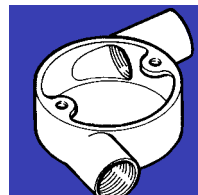
Size	20mm	25mm
Standard Pack Qty	10	10

**Intersection and Back Outlet No. M191**

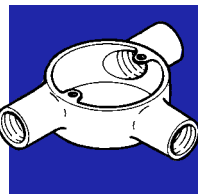
Size	20mm	25mm
Standard Pack Qty	10	10

**Tangent Through No. M192**

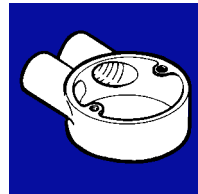
Size	20mm	25mm
Standard Pack Qty	10	10

**Tangent Angle No. M193**

Size	20mm	25mm
Standard Pack Qty	10	10

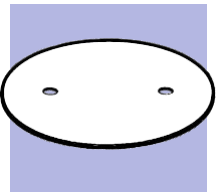
**Tangent Tee No. M194**

Size	20mm	25mm
Standard Pack Qty	10	10

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

Size	20mm	25mm
Standard Pack Qty	10	10

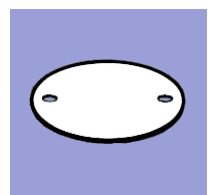
COVERS - CIRCULAR SMALL



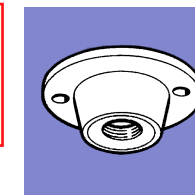
Cover, Light, Overlapping, Loose, No Screws No. R280
 Material: Steel
 Finishes: Black Enamel, Hot Dipped Galvanised
 Standard Pack Qty: 50



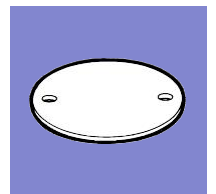
Cover, Female Dome No. R289
 Material: Steel
 Finishes: Black Enamel, Hot Dipped Galvanised
 Size 20mm 25mm
 Standard Pack Qty 25 25



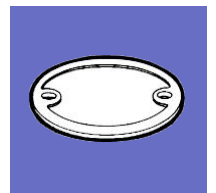
Cover, Light, Loose, No Screws. No. R281
 Material: Steel
 Finishes: Black Enamel, Hot Dipped Galvanised
 Standard Pack Qty: 100



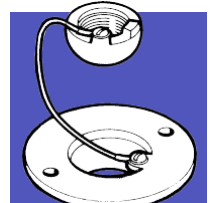
Cover, Ball and Socket, Earthed No. R290
 Material: Steel
 Finishes: Black Enamel, Hot Dipped Galvanised
 Size 20mm 25mm
 Standard Pack Qty 25 25



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



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



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

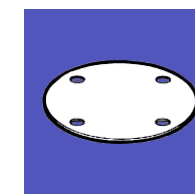


Cover, Hook Dome, Combined No. R287
 Material: Steel
 Finishes: Black Enamel, Hot Dipped Galvanised
 Standard Pack Qty: 25



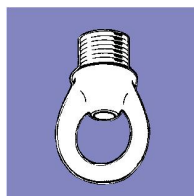
Cover, Female Dome No. M288
 Material: Malleable Iron
 Finishes: Black Enamel, Hot Dipped Galvanised
 Size 20mm 25mm
 Standard Pack Qty 25 25

COVERS - CIRCULAR LARGE



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

HOOKS AND LOOPS

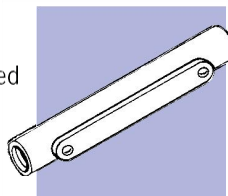
**Loop, Male No. M501**

Material: Malleable Iron

Finishes: Black Enamel, Hot Dipped 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

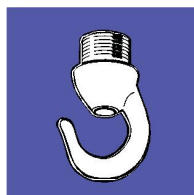
Finishes: Black Enamel, Hot Dipped Galvanised

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, Hot Dipped Galvanised

Size 20mm 25mm

Standard Pack Qty 50 50

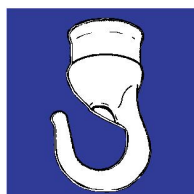
**Loop, Female No. M503**

Material: Malleable Iron

Finishes: Black Enamel, Hot Dipped Galvanised

Size 20mm 25mm

Standard Pack Qty 50 50

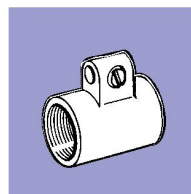
**Hook, Female No. M504**

Material: Malleable Iron

Finishes: Black Enamel, Hot Dipped Galvanised

Size 20mm 25mm

Standard Pack Qty 50 50

**Coupling, Earthing No. M105**

Material: Malleable Iron

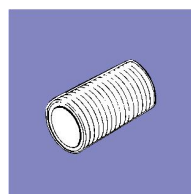
Finishes: Black Enamel, Hot Dipped Galvanised

Size 20mm 25mm 32mm

Standard Pack Qty 50 50 25

Size 1½" 2"

Standard Pack Qty 25 10

**Nipple, Normal No. F107**

Material: Steel

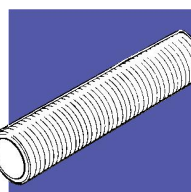
Finishes: Self Colour, Hot Dipped Galvanised

Size 20mm 25mm 32mm

Standard Pack Qty 100 100 50

Size 1½" 2"

Standard Pack Qty 50 25

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

Material: Steel

Finishes: Black Enamel, Hot Dipped Galvanised

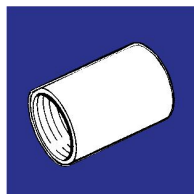
Size 20mm 25mm 32mm

Standard Pack Qty 10 10 10

Size 1½" 2"

Standard Pack Qty 10 5

COUPLINGS

**Coupling, Solid No. R101**

Material: Steel

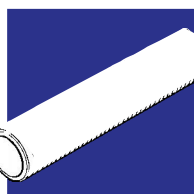
Finishes: Black Enamel, Hot Dipped Galvanised

Size 20mm 25mm 32mm

Standard Pack Qty 100 50 50

Size 1½" 2"

Standard Pack Qty 25 20

**Expansion Coupling, Solid No. R104**

Material: Steel

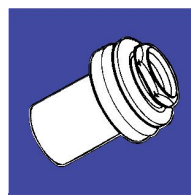
Finishes : Black Enamel, Hot Dipped Galvanised

Size 20mm 25mm 32mm

Standard Pack Qty 50 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, Hot Dipped Galvanised

M110 (lead washer),

M111 (Neoprene washer)

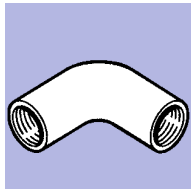
Size 20mm 25mm 32mm

Standard Pack Qty 50 50 25

Size 1½" 2"

Standard Pack Qty 25 20

ELBOWS

**Elbow, Solid No. M121**

Material: Malleable Iron

Finishes: Black Enamel, Hot Dipped

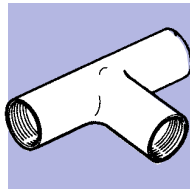
Size 20mm 25mm

Standard Pack 25 25 10

QtySize 1½" 2"

are available on request

TEES

**Tee, Solid No. M131**

Material: Malleable Iron

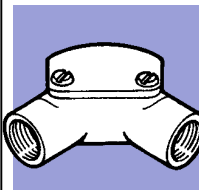
Finishes: Black Enamel, Hot Dipped

Size 20mm 25mm

Standard Pack 25 25 10

QtySize 1½" 2"

are available on request

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

Material: Malleable Iron, 20mm – 32mm Steel

Cover 1½" – 2" Malleable Iron Cover

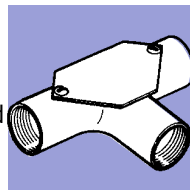
Finishes: Black Enamel, Hot Dipped Galvanised

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, Hot Dipped Galvanised

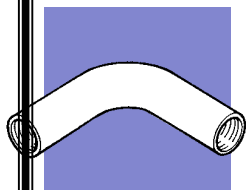
Size 20mm 25mm 32mm

Standard Pack Qty 20 20 10

Size 1½" 2"

are available on request only

BENDS

**Bends, Normal, Internal Thread No. R141**

Material: Steel

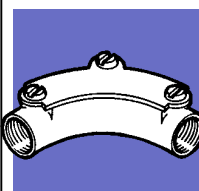
Finishes: Black Enamel, Hot Dipped Galvanised

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, Hot Dipped Galvanised

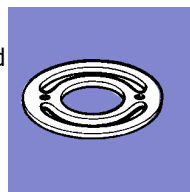
Size 20mm 25mm 32mm

Standard Pack Qty 20 10 5

Size 1½" 2"

are available on request only

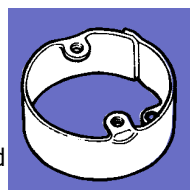
RINGS

**Ring, Adaptor No. M370**

Material: Malleable Iron

Finishes: Black Enamel, Hot Dipped Galvanised

Standard Pack Qty: 100

**Ring, Extension No. R294**

Material: Steel

Finishes: Black Enamel, Hot Dipped Galvanised

Size 10mm 13mm

Standard Pack Qty 50 50

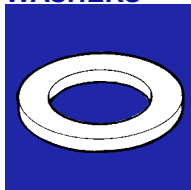
Size 16mm 19mm 25mm

Standard Pack Qty 25 25 25

Size 32mm 38mm 50mm

Standard Pack Qty 10 10 10

WASHERS

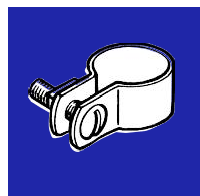
**Lead No. F112****Neoprene No. F113**

Size 20mm 25mm 32mm

Standard Pack Qty 250 250 250

Size 1½" 2"

Standard Pack Qty 25 25

**Clip, Earthing No. F506**

Material: Copper

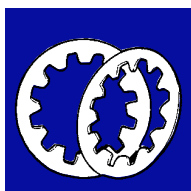
Finish: Self Colour

Size 20mm 25mm 32mm

Standard Pack Qty 100 100 50

Size 1½" 2"

Standard Pack Qty 50 50

**Serrated No. F116**

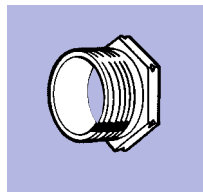
Material: Steel

Finishes: Self Colour, Zinc Plated

Size 20mm 25mm 32mm

Standard Pack Qty 500 400 100

BUSHES

**Bush, Short Male No. F531**

Material: Brass

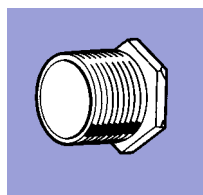
Finish: Self Colour

Size 20mm 25mm 32mm

Standard Pack Qty 150 100 50

Size 1½" 2"

Standard Pack Qty 25 25

**Bush, Long Male No. F532**

Material: Brass

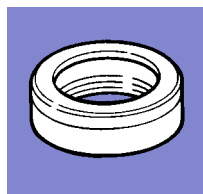
Finish: Self Colour

Size 20mm 25mm 32mm

Standard Pack Qty 100 50 25

Size 1½" 2"

Standard Pack Qty 25 15

**Bush, Female No. F534**

Material: Brass

Finish: Self Colour

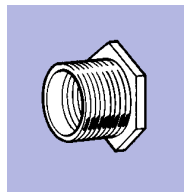
Size 20mm 25mm 32mm

Standard Pack Qty 200 150 100

Size 1½" 2"

Standard Pack Qty 50 25

REDUCERS

**Reducer No. M471**

Material: Malleable Iron

Finishes: Black Enamel, Hot Dipped

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

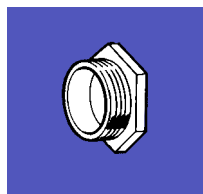
2" x 25mm 2" x 32mm

25 25

2" x 1½"

25

PLUGS AND GLANDS

**Plug, Hexagon Head, No. M527**

Material: Malleable Iron

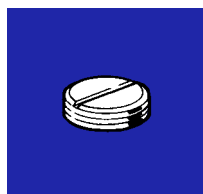
Finishes: Black Enamel, Hot Dipped Galvanised

Size 20mm 25mm 32mm

Standard Pack Qty 100 100 50

Size 1½" 2"

Standard Pack Qty 50 25

**Plug, Slotted Head No. F535**

Material: Brass

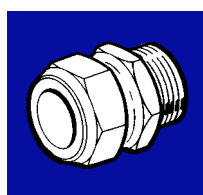
Finishes: Self Colour

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 No. F538**

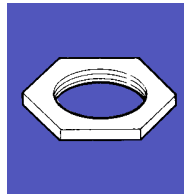
Material: Brass

Finishes: Self Colour

Size 20mm 25mm

Standard Pack Qty 50 50

LOCKNUT

**Locknut, Hexagon Light No. R507**

Material: Steel

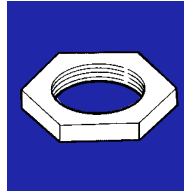
Finishes: Black Enamel, Hot Dipped

Size 20mm 25mm

Standard Pack 600 40 10

QtySize 1½ 0

Standard Pack " 2"

**Locknut, Hexagon Heavy No. M508**

Material: Malleable Iron

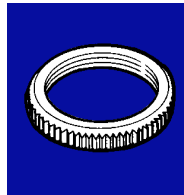
Finishes: Black Enamel, Hot Dipped

Size 20mm 25mm

Standard Pack 100 10 10

QtySize 1½ 0

Standard Pack " 2"

**Locknut, Circular, Milled Edge No. F505**

Material: Steel

Finishes: Self Colour, Zinc

Size 20mm 25mm

Standard Pack 600 40 10

QtySize 1½ 0

Standard Pack " 2"

SADDLES

**Saddle, Hospital No. M362**

Material: Malleable Iron Base, with Steel Top

Finishes: Black Enamel, Hot Dipped Galvanised

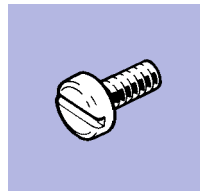
Size 20mm 25mm 32mm

Standard Pack Qty 50 25 25

Size 1½" 2"

Standard Pack Qty 25 10

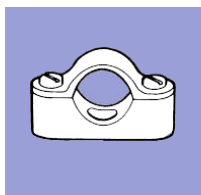
SCREWS

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

Length: 6mm 10mm 12mm 16mm

20mm 25mm

Standard Pack Qty: 500

**Saddle, Distance No. M363**

Material: Iron Base with Steel Top

Finishes: Black Enamel, Hot Dipped Galvanised

Size 20mm 25mm 32mm

Standard Pack Qty 50 25 25

Size 1½" 2"

Standard Pack Qty 25 10

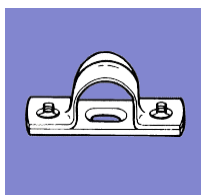


Screw - Steel, Bright Zinc Plated.

M4 Pan Head No. F645

Length: 5mm 6mm

Standard Pack Qty: 500

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

Material: Steel

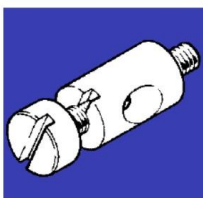
Finishes: Black Enamel, Galvanised

Size 20mm 25mm 32mm

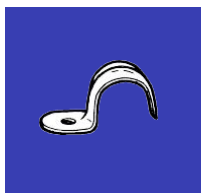
Standard Pack Qty 100 100 50

Size 1½" 2"

Standard Pack Qty 50 20

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

Standard Pack Qty: 500

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

Material: Steel

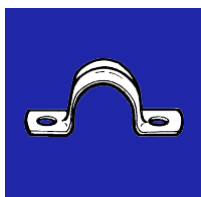
Finishes: Black Enamel, Galvanised

Size 20mm 25mm

Standard Pack Qty 100 100

Size 32mm

Standard Pack Qty 100

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

Material: Steel

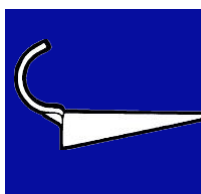
Finishes: Black Enamel, Galvanised

Size 20mm 25mm 32mm

Standard Pack Qty 100 100 100

Size 1½" 2"

Standard Pack Qty 100 50

**Crampet, Steel No. F461**

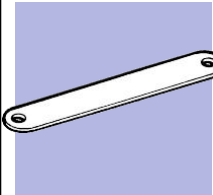
Material: Steel

Finishes: Black Enamel, Galvanised

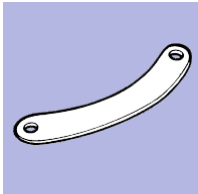
Size 20mm 25mm

Standard Pack Qty 100 100

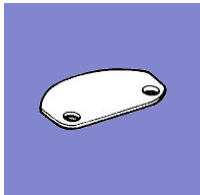
GASKETS



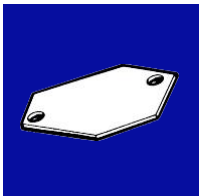
**Rubber Gasket for Coupling,
Inspection No. F401**
Size 20mm 25mm 32mm
Size 1½" 2"



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



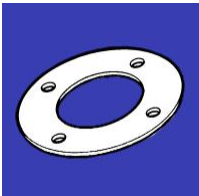
**Rubber Gasket for Elbow,
Channel Inspection No. F402**
Size 20mm 25mm 32mm
Size 1½" 2"



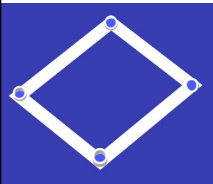
**Rubber Gasket for Tee,
Channel Inspection No. F405**
Size 20mm 25mm 32mm
Size 1½" 2"



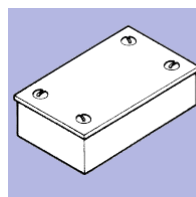
**Rubber Gasket for Box,
Small Circular No. F409**



**Rubber Gasket for Box,
Large Circular No. F410**



**Rubber Gasket for Adaptable
Boxes No. F415**



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	Minimum Number of K.O.'s in each side	Size of K.O.
3"	2	20mm
4"	2	20mm & 25mm
6"	3	20mm & 25mm
9"	5	20mm & 25mm
12"	7	20mm & 25mm

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.

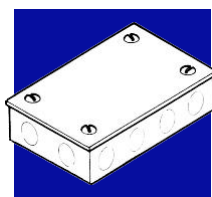
Rubber gaskets are available and supplied to order at an extracharge. (F415)

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 Plain No. R261

Size		Pack Qty
mm	Inches	
75 x 75 x 37.5	3 x 3 x 1½	1
75 x 75 x 50	3 x 3 x 2	1
75 x 75 x 75	3 x 3 x 3	1
100 x 75 x 37.5	4 x 3 x 1½	1
100 x 75 x 50	4 x 3 x 2	1
100 x 100 x 37.5	4 x 4 x 1½	1
100 x 100 x 50	4 x 4 x 2	1
100 x 100 x 75	4 x 4 x 3	1
100 x 100 x 100	4 x 4 x 4	1
150 x 75 x 37.5	6 x 3 x 1½	1
150 x 75 x 50	6 x 3 x 2	1
150 x 75 x 75	6 x 3 x 3	1
150 x 100 x 37.5	6 x 4 x 1½	1
150 x 100 x 50	6 x 4 x 2	1
150 x 100 x 75	6 x 4 x 3	1
150 x 150 x 37.5	6 x 6 x 1½	1
150 x 150 x 50	6 x 6 x 2	1
150 x 150 x 75	6 x 6 x 3	1
150 x 150 x 100	6 x 6 x 4	1
150 x 150 x 150	6 x 6 x 7	1
200 x 150 x 150	8 x 6 x 2	1
200 x 200 x 100	8 x 8 x 4	1
200 x 200 x 150	8 x 8 x 6	1
225 x 75 x 37.5	9 x 3 x 1½	1
225 x 75 x 50	9 x 3 x 2	1
225 x 75 x 75	9 x 3 x 3	1
225 x 100 x 75	9 x 4 x 3	1
225 x 150 x 37.5	9 x 6 x 1½	1
225 x 150 x 50	9 x 6 x 2	1
225 x 150 x 75	9 x 6 x 3	1
225 x 150 x 100	9 x 6 x 4	1
225 x 225 x 50	9 x 9 x 2	1
225 x 225 x 75	9 x 9 x 3	1
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	1
300 x 150 x 75	12 x 6 x 3	1
300 x 150 x 100	12 x 6 x 4	1
300 x 225 x 50	12 x 9 x 2	1
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	1
300 x 300 x 50	12 x 12 x 2	1
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



Adaptable Boxes with Knock-outs No. R262



CERTIFICATE OF ORIGIN

S1, Warehouse, 17th Street Umm Ramool, Rashidiya, Landline: 04 3581336, Mobile: +971
(0) 505439933,
Email: enquiry@smartsense.aisa, Website: www.smartsense.aisa.

1. EXPORTER(NAME,ADDRESS,COUNTRY) LIBERTY BUILDINGS SOLUTIONS FZE JEBEL ALI FREE ZONE, DUBAI TEL:048864344 UNITED ARAB EMIRATES		UNITED ARAB EMIRATES دولة الإمارات العربية المتحدة	
2. CONSIGNEE(NAME,ADDRESS,COUNTRY) AL HATHBOOR ELECTRICALS PO BOX: 6069 DUBAI TEL:046085555 UNITED ARAB EMIRATES		 شهادة المنشأ Certificate of Origin	
		Certificate No. 20667943	Date 20-JUN-2021
ORIGINAL			
3. Means of Transport: Vessel's Name/Flight No. : By Land	وسيلة النقل	6. Country of Final Destination United Arab Emirates	بلد الوجهة الأخيرة
4. Estimated Date of Departure	التاريخ المتوقع للمغادرة	7. Invoice No. and Date 7010/SIO10001903, 04-MAR-2021	رقم و تاريخ الفاتورة
5. Port of Discharge	ميناء / مكان التفريغ	8. Country of Origin of Goods [United Kingdom]	بلد منشأ البضاعة
9. العلامات والأرقام Marks & Numbers	10. عدد ونوع التعبئة، وصف البضاعة (أسماء الماركات إذا لزم الأمر) No. and Kind of Packages,Description of Goods (Include Brand Names if Necessary)		11. الكمية والوحدة Quantity & Unit
1 73063000 2 73012000	Tubes, pipes & hollow profiles, welded, of circular cross-section, of iron or non-alloy steel, n.e.s. Welded angles, shapes & sections, of iron or steel.		
As per the attached invoice End of Description			
			
12. CERTIFICATION BY THE COMPETENT AUTHORITY			
We hereby certify that evidence has been produced to satisfy us that the goods specified above originate in / were processed in the country shown in box 8. This Certificate is, therefore, issued and certified to the best of our knowledge and belief to be correct and without any liability on our part.		تصديق جهة الإصدار نشهد بأنه قد تم تقديم الأدلة بأن البضاعة المذكورة أعلاه منشؤها / تصنيعها في البلد الموضح في الخانة 8. ولذلك فإن هذه الشهادة قد تم إصدارها والتصديق عليها حسب معرفتنا واعتقادنا بصحتها دون أية مسؤولية علينا.	
 Authorized Signatory	 International Chamber of Commerce CERTIFICATE OF ORIGIN Accredited Chamber AE1200101 WORLD CHAMBERS FEDERATION	 غرفة تجارة وصناعة دبي DUBAI CHAMBER CERTIFICATE OF ORIGIN Dubai Chamber of Commerce & Industry	
Once this Certificate is issued, it shall be invalid should any alteration be made to this Certificate, without the competent Authority's authorization.		بمجرد إصدار هذه الشهادة فإن أي تغيير فيها دون إذن من جهة الإصدار يجعلها لاغية.	
	للتأكد من صحة الشهادة يرجى زيارة أحد المواقع التالية For online verification of this certificate, please visit: http://www.dubaichamber.com/verify Verify ID 9440892491XWJ https://certificates.iccwbo.org/		



Original

Liberty Building Solutions FZE, Street S701, Plot S30216, South Zone 3,
Jebel Ali Free Zone, PO BOX 263871, Dubai, United Arab Emirates
Tel: +971 (0) 4 886 4344

Tax Invoice No. 7010/SIO10001903
TAX Registration No: 100033084300003

Date/Tax Point 04/03/2021

Sales Office - Dubai

Invoice To
AL HATHBOOR ELECTRICALS LLC
6069 DUBAI
UNITED ARAB EMIRATES
AHE UAE

Consignee / Deliver To
AL HATHBOOR GROUP (L.L.C.)
P.O. BOX 17505 WH NO 9 JAFZA
PLOT NO S10607ADUBAI
UNITED ARAB EMIRATES

TRN: 100372260800003

Acc No: C00000001

Delivery Terms:

Payment Due: 02/06/2021

Product / Description	Desp Note	HS Code	Qty	Unit Price USD	Total (NET) USD	FX Rate	Unit Price AED	Total (NET) AED	VAT AED	Total (inc. VAT) AED	VAT Rate
Our Order: S00001672 Your Order: 121616972											
10 TUBU20GLVHG 20MM BS4568 STEEL CONDUIT HDG	D00003552	73063000	200								
Our Order: S00001704 Your Order: 121617083											
10 RC261GLV442 100 x 100 x 50MM ADAPTABLE BOX	D00003552	73012000	350								
Our Order: S00001721 Your Order: 121617123											
10 TUBU20GLVHG 20MM BS4568 STEEL CONDUIT HDG	D00003553	73063000	3000								
20 TUBU25GLVHG 25MM BS4568 STEEL CONDUIT HDG	D00003553	73063000	3200								

PACKING LIST:

NO. OF BUNDLES - 13

NO. OF PALLETS - 01

GROSS WEIGHT - 19394.10 KGS

COC - UK



All goods and services are supplied by the Seller subject to the Seller's Standard Terms and Conditions, available at <http://www.libertybuildingsolutions.com/about-us/terms-and-conditions/>

The Recipient of Goods is required to account for tax under the provisions of the Executive Regulations of the Federal Decree-Law No. (8) of 2016 on the Value Added Tax (VAT) in the United Arab Emirates, as amended.

Recipient is required to account for tax under the reverse charge mechanism under the article 30 of the UAE Law.

Emirates NBD
Emirates NBD
National Bank of Fujairah
National Bank of Fujairah

AED payments:
USD payments:
AED payments:
USD payments:

Acc No: 1015186389001
Acc No: 1025186389002
Acc No: 012001258565
Acc No: 012001258573

IBAN: AE530260001019100099001
IBAN: AE630260001019100099002
IBAN: AE070380000012001258565
IBAN: AE070380000012001258573

FORMED PURSUANT TO LAW NO 9 OF 1992 WITH LIMITED LIABILITY
Company Registered No. 179788, CN 144253, License No. 153757 in Jebel Ali Free Zone



For verification scan barcode

COO #: 20667943
COO Date: 20-Jun-2021
Invoice #: 7010/SIO10001903
Invoice Date: 04-Mar-2021



CERTIFICATES (LOCAL /TEST
CERTIFICATES/UL/FM/WRAS)

S1, Warehouse, 17th Street Umm Ramool, Rashidiya, Landline: 04 3581336, Mobile: +971
(0) 505439933,
Email: enquiry@smartsense.aisa Website: www.smartsense.aisa

Test Report

info@rotechlabs.co.uk

Our Ref: LBS 230217 Number 166451 Issue 2 Date 27/04/2017 Page 1 of 5

A/C No: L172

Tested For:-

Liberty Building Solutions FZE
Unit FZS5 AB04 South 5
Jebel Ali Free Zone
Dubai
PO BOX 263871

RELEVANT INFORMATION

Description:	Samples 20mm straight Conduit Tube – 3.75 metres length Samples 25mm straight Conduit Tube – 3.75 metres length Samples 32mm straight Conduit Tube - 3.75 metres length Conduit Fittings for 20mm, 25mm and 32mm conduit tubes
Specification:	BS EN 61386-1:2008
Purchase Order Number:	LBS 230217
Date Received:	01-03-2017

INTRODUCTION

Five 3.75 metres length samples of Barton Engineering 20mm diameter, and five 3.75 metres length samples of Barton Engineering 25mm diameter, and five 3.75 metres length samples of Barton Engineering 32mm diameter conduit tubes along with malleable and steel fittings for each size were submitted to the laboratory for testing in accordance with BS EN 61386, Part 1, 2008, Classification 4, Heavy.

RELEVANT INFORMATION

Customer's Order No: LBS 230217
Sample Receipt Date: 01/03/2017

The samples were submitted to the laboratory for:

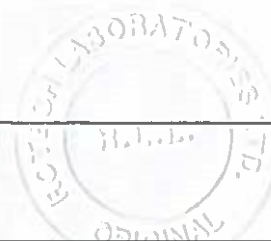
- Tensile Testing
- Impact Testing
- Compression Testing
- Corrosion Testing

REPORT APPROVED BY



C. Jones (Mechanical Testing Technician)

TESTS MARKED 'SC' HAVE BEEN SUBCONTRACTED.
RESULTS IN THIS REPORT RELATE ONLY TO THE ITEMS TESTED
THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT WRITTEN APPROVAL OF THE LABORATORY
TESTING CONDUCTED IN ACCORDANCE WITH MANAGEMENT SYSTEM MANUAL ISSUE 14



CONDUIT TUBE SAMPLES FOR COMPRESSION TESTING**RESULTS****20mm Conduit – Testing to BS EN 61386-1:2008, Section 6.1.1.**

One straight Barton Engineering, 20mm diameter conduit tube samples and fittings was tested for Resistance to Compression in accordance with BS EN 61386, Part 1, 2008, Section 6.1.1 (Classification 4, Heavy). See below:

Description	Size	Qty.	Test	Dia. Before	Dia. During	Dia. After	Comments
Conduit Tubes	20mm	1	1	19.93mm	20.72mm	19.97mm	No Visible Cracks

25mm Conduit – Testing to BS EN 61386-1:2008, Section 6.1.1.

One straight Barton Engineering, 25mm diameter conduit tube samples and fittings was tested for Resistance to Compression in accordance with BS EN 61386, Part 1, 2008, Section 6.1.1 (Classification 4, Heavy). See below:

Description	Size	Qty.	Test	Dia. Before	Dia. During	Dia. After	Comments
Conduit Tubes	25mm	1	1	24.99mm	25.36mm	25.13mm	No Visible Cracks

32mm Conduit – Testing to BS EN 61386-1:2008, Section 6.1.1.

One straight Barton Engineering, 32mm diameter conduit tube samples and fittings was tested for Resistance to Compression in accordance with BS EN 61386, Part 1, 2008, Section 6.1.1 (Classification 4, Heavy). See below:

Description	Size	Qty.	Test	Dia. Before	Dia. During	Dia. After	Comments
Conduit Tubes	32mm	1	1	32.06mm	32.49mm	32.23mm	No Visible Cracks

CONDUIT TUBE SAMPLES FOR IMPACT TESTING**RESULTS****20mm Conduit – Testing to BS EN 61386-1:2008, Section 6.1.2.**

One straight Barton Engineering, 20mm diameter conduit tube samples and fittings was tested for Resistance to Impact in accordance with BS EN 61386, Part 1, 2008, Section 6.1.2 (Classification 4, Heavy). See below:

Description	Size	Qty.	Test	Comments
Conduit Tubes	20mm	12	1	No sign of disintegration or cracking
			2	No sign of disintegration or cracking
			3	No sign of disintegration or cracking
			4	No sign of disintegration or cracking
			5	No sign of disintegration or cracking
			6	No sign of disintegration or cracking
			7	No sign of disintegration or cracking
			8	No sign of disintegration or cracking
			9	No sign of disintegration or cracking
			10	No sign of disintegration or cracking
			11	No sign of disintegration or cracking
			12	No sign of disintegration or cracking



25mm Conduit – Testing to BS EN 61386-1:2008, Section 6.1.2.

One straight Barton Engineering, 25mm diameter conduit tube samples and fittings was tested for Resistance to Impact in accordance with BS EN 61386, Part 1, 2008, Section 6.1.2 (Classification 4, Heavy). See below:

Description	Size	Qty.	Test	Comments
Conduit Tubes	25mm	12	1	No sign of disintegration or cracking
			2	No sign of disintegration or cracking
			3	No sign of disintegration or cracking
			4	No sign of disintegration or cracking
			5	No sign of disintegration or cracking
			6	No sign of disintegration or cracking
			7	No sign of disintegration or cracking
			8	No sign of disintegration or cracking
			9	No sign of disintegration or cracking
			10	No sign of disintegration or cracking
			11	No sign of disintegration or cracking
			12	No sign of disintegration or cracking

32mm Conduit – Testing to BS EN 61386-1:2008, Section 6.1.2.

One straight Barton Engineering, 32mm diameter conduit tube samples and fittings was tested for Resistance to Impact in accordance with BS EN 61386, Part 1, 2008, Section 6.1.2 (Classification 4, Heavy). See below:

Description	Size	Qty.	Test	Comments
Conduit Tubes	32mm	12	1	No sign of disintegration or cracking
			2	No sign of disintegration or cracking
			3	No sign of disintegration or cracking
			4	No sign of disintegration or cracking
			5	No sign of disintegration or cracking
			6	No sign of disintegration or cracking
			7	No sign of disintegration or cracking
			8	No sign of disintegration or cracking
			9	No sign of disintegration or cracking
			10	No sign of disintegration or cracking
			11	No sign of disintegration or cracking
			12	No sign of disintegration or cracking



CONDUIT TUBE SAMPLES FOR TENSILE TESTING**RESULTS****20mm Conduit – Testing to BS EN 61386-1:2008, Section 6.1.4**

6 samples Barton Engineering, 20mm diameter conduit tube samples and fittings threaded at one end, were tested for Tensile Strength in accordance with BS EN 61386, Part 1, 2008, Section 6.1.4 (Classification 4, Heavy). See below:

Description	Size	Qty.	Test	Comments
Conduit Tubes	20mm	6	1	No Elongation Recorded. Threads undamaged
			2	No Elongation Recorded. Threads undamaged
			3	No Elongation Recorded. Threads undamaged

Note samples were tested in pairs using the connector provided by the customer

25mm Conduit – Testing to BS EN 61386-1:2008, Section 6.1.4

6 straight Barton Engineering, 25mm diameter conduit tube samples and fittings threaded at one end were tested for Tensile Strength in accordance with BS EN 61386, Part 1, 2008, Section 6.1.4 (Classification 4, Heavy). See below:

Description	Size	Qty.	Test	Comments
Conduit Tubes	25mm	6	1	No Elongation Recorded. Threads undamaged
			2	No Elongation Recorded. Threads undamaged
			3	No Elongation Recorded. Threads undamaged

Note samples were tested in pairs using the connector provided by the customer

32mm Conduit – Testing to BS EN 61386-1:2008, Section 6.1.4

6 straight Barton Engineering, 32mm diameter conduit tube samples and fittings threaded at one end were tested for Tensile Strength in accordance with BS EN 61386, Part 1, 2008, Section 6.1.4 (Classification 4, Heavy). (High Protection). See below:

Description	Size	Qty.	Test	Comments
Conduit Tubes	32mm	3	1	No Elongation Recorded. Threads undamaged
			2	No Elongation Recorded. Threads undamaged
			3	No Elongation Recorded. Threads undamaged

Note samples were tested in pairs using the connector provided by the customer



CONDUIT TUBE SAMPLES FOR RESISTANCE TO CORROSION TESTING**RESULTS****20mm Conduit – Testing to BS EN 61386-1:2008, Section 14.2.2.3**

Three straight and two bent Barton Engineering, 20mm diameter conduit tube samples and fittings were tested for corrosion resistance in accordance with BS EN 61386, Part 1, 2008, Section 14.2.2.3 (Classification 4, Heavy)(High Protection), the samples exhibited no evidence of any copper deposited on either the inner or outer surfaces.

These samples were found to be acceptable to the requirements of BS EN 61386-1:2008, Section 14.2.2.3 (High Protection).

Corrosion Resistance Testing to BS EN 61386-1:2008, Section 14.2.2.3			
Samples	Details	Results	Comments
3 off Straight Samples	20mm Conduit Tube Samples	ACCEPTABLE	see comments
2 off Bent Samples	20mm Conduit Tube Samples	ACCEPTABLE	see comments

25mm Conduit – Testing to BS EN 61386-1:2008, Section 14.2.2.3

Three straight and two bent Barton Engineering, 25mm diameter conduit tube samples and fittings were tested for corrosion resistance in accordance with BS EN 61386, Part 1, 2008, Section 14.2.2.3 (Classification 4, Heavy) (High Protection), the samples exhibited no evidence of any copper deposited on either the inner or outer surfaces.

These samples were found to be acceptable to the requirements of BS EN 61386-1:2008, Section 14.2.2.3 (High Protection).

Corrosion Resistance Testing to BS EN 61386-1:2008, Section 14.2.2.3			
Samples	Details	Results	Comments
3 off Straight Samples	25mm Conduit Tube Samples	ACCEPTABLE	see comments
2 off Bent Samples	25mm Conduit Tube Samples	ACCEPTABLE	see comments

32mm Conduit – Testing to BS EN 61386-1:2008, Section 14.2.2.3

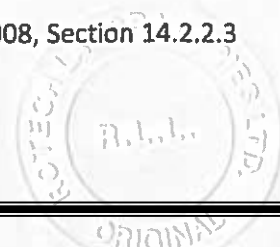
Three straight and two bent Barton Engineering, 32mm diameter conduit tube samples and fittings were tested for corrosion resistance in accordance with BS EN 61386, Part 1, 2008, Section 14.2.2.3 (Classification 4, Heavy (High Protection), the samples exhibited no evidence of any copper deposited on either the inner or outer surfaces.

These samples were found to be acceptable to the requirements of BS EN 61386-1:2008, Section 14.2.2.3 (High Protection).

Corrosion Resistance Testing to BS EN 61386-1:2008, Section 14.2.2.3			
Samples	Details	Results	Comments
3 off Straight Samples	32mm Conduit Tube Samples	ACCEPTABLE	see comments
2 off Bent Samples	32mm Conduit Tube Samples	ACCEPTABLE	see comments



COMMENTS

These samples tested were found to be acceptable to the requirements of BS EN 61386-1:2008, Section 14.2.2.3 Classification 4, Heavy, for the above tested clauses.





PREVIOUS APPROVAL COPIES

	Dubai International Airport Expansion Phase II		Contract Ref: AX137
	Concourse III		Material Submittal
	Contract: External Envelope and Cleaning & Washing System – Concourse III		MS No:CEW001- Rev 02
	To the Engineer:		Date: 22-11-2009

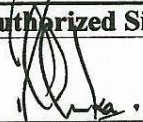
MATERIAL DESCRIPTION (One Item Only Per Form)	As Specification [X]	Alternative []
Title : RIGID HEAVY GAUGE GALVANIZED STEEL CONDUITS and FITTINGS (25 mm and 50 mm)	Sample : Yes	
Description : Used for LIGHTNING PROTECTION and LOW LEVEL SMOKE VENT CONDUITS		

- Attach all relevant technical literature marked to identify relevant descriptions, current test certificate, samples etc.
- Attach a certificate stating compliance with Contract requirements
- Highlight any element of contractual non-compliance in this submittal

Drawing Ref: - AX124-3-4-E-6504 & 6657 & AX137-3-4-CEW-001 & 016	Planned Date for applicable submittal for: -	Date:
Specification Ref: - SECTION 16130 – PART 2	1. O & M Manual	April 2010
BOQ Ref: - B/2/44 and 45	2. DCA Training	N/A
International Standards Ref: - BS 4568 – PART 1	3. Specified /recommended spare parts	N/A
BSEN50086 Plus BS 31	4. Warranties and Guarantees	April 2010

Manufacturer / Supplier

Company Name: - BARTON Engineering	Locally Manufactured : NO
Address: Phoenix Street West Bromwich , West Midlands United Kingdom	CGASG Manufactured : NO
	Production Period : MASS PRODUCTION
	Delivery Ex-works : CONDUITS AVAILABLE IN UAE
	Total Delivery Time : IN STOCK
	Overland : YES
Local Agent: AI HATHBOOR ELECTRICALS	Sea Freight : N/A
	Total Freight : N/A

Programme: -	Contractor's Authorized Signature
Date required on Site: - OCTOBER 2009	
Expected date of arrival on Site: - OCTOBER 2009 (As per Clause 14.1 Programme)	



Engineer's Comments :-

Refer to our comments on the attached sheet.




Signed (Engineering Manager)

Signed (Deputy Chief Resident Engineer)

	Status 2	Code 1 Work may proceed	Code 2 Revise and Resubmit Work may proceed	Code 3 Revise & Resubmit. Work may not proceed	Code 4 Review not required. Work may proceed
	Chief Resident Engineer				Date: -
					7-1-10

CC: DCA (EP), TTS - PKP

	Code 3 - Revise & Resubmit. Work may not proceed Code 4 - Review not required. Work may proceed														
	DISTRIBUTION ACTION RAA, DC, KL, AR, o. Dir, J. Man, Design, Logistics, Quality, Safety, Counts, SITE, AST, LAG, THER, THER, THER, FILE														

Response to comments by Do 2 45 ft specification 10/1/10



REMRAAM



خطيب و علمي
شركة استشارات
Khatib & Alami
CONSULTING ENGINEERS

**MATERIAL SUBMITTAL**

Ref. No.:
UME/ME57/MS/E-05

Rev. 0

Date: 01.10.14

Response required by: 12.10.2014

Project: REMRAAM Housing Project at Dubai Land Phase 2

Project No: J343

Location: Plot No. 6830847 at Dubai Land, Phase 2A

To : M/s Khatib & Alami

From: M/s Engineering Contracting Company L.L.C.

Type of Documents:

- ☒ Test Report
☒ Technical Data Sheet
☒ Compliance Statement
☒ Samples
☒ Others

Discipline:

- ☐ Architectural
☐ Structural
☐ Civil
☒ MEP
☐ Others

☒ Electrical☐ Mechanical**ADVANCED COPY**

Material Description :

G.I CONDUITS

Location / Area :

ON SLABS / WALLS SURFACE CONDUITING

Drawing Ref :

Project Specification Ref :

PART B- SECTION -5 1.0

RECEIVED Time at

08 OCT 2014

ENGINEERING CONT. CO. L.L.C.
JOB #343

Material Status

☒ Specified☐ Alternative

(if no attached comparison sheet)

Manufacturer/ Supplier

Company Name:

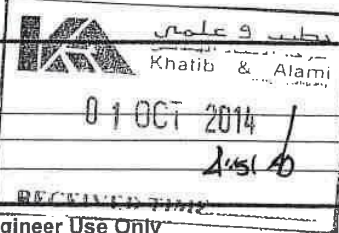
BARTON

Country of Origin:

UK / CHINA

Local Agent:

AL HATHBOOR ELECTRICAL LLC

Delivery :

Production Period:

6 WEEKS

Delivery of Works:

3 WEEK

Total Delivery Time:

10 - 12 WEEKS

Expected Date of Delivery on Site:

Engineer Use Only☐ A - Approved☒ B - Approved as Commented☐ C - Rejected

The contractor has reviewed this submission prior to submission to the Consultant

MEP Contractor:

Name: Jacob Villoth

Signature:

Date: 1/10/14

Contractor's Representative:

Bassel Hijazi

Signature:

Date: 1-10-14

Engineer Comments:

*method statement for installation**N.N***Abdul Salam Daghmash**

Project Manager:

Signature:

Date: 8-10-14

cc: Mr. Azzam Abu Qaoud - (PD) M/s DPG

AGNICE CONTRACTING LLC

P.O.Box.No. 28737, Dubai, U.A.E, Tele: 04 285 4555 Fax : 04 285 4556

Project : Proposed Warehouse & G+M office

Plot No : S 20144 , JAFZA south, Dubai.

AGNICE
A MANAPPAT COMPANY**MATERIAL SUBMITTAL****Main Contractor: AGNICE CONTRACTING LLC**Address: P.O.Box.No. 28737, Dubai, U.A.E
Tel: 04 285 4555 Fax : 04 285 4556**Client: M/S. HANS LOGISTICS**Address: PO BOX. 40806, JEBEL ALI, DUBAI, UAE
TEL: 04 8811334 FAX: 04 8811335**Consultant: DESIGN HOUSE ENGINEERING CONSULTANCY**

P.O.Box.No. 90201, Dubai, U.A.E

Tel : 04-2951822 Fax : 04-2951844

Date of submittal : 20/2/2016

Submittal Ref: AGN-20005-MEP-MAT-EL-001

Material description: ELECTRICAL GI CONDUITS & FITTINGS

Catalogue Ref: Rev. No. 01

Manufacturer & Supplier: BARTON \ AL HATHBOOR ELECTRICALS

Address: P.O.Box :32218, Dubai, U.A.E

Tel : 04-2828005 Fax : 04-2828006

Location:

Production period: NA

Spec. Ref:

Delivery Ex-works: NA

BOQ Ref: NA

Total Delivery time: NA

Date Material required at site: NA

Expected date of delivery to site: NA

Delivery method:

☐

Overland

☐

Sea Freight

☐

Air Freight

☐

* Other

Contractor's comments:

If alternate Material submitted, attach full comparison to that specified.

Attachments/Enclosures:☐

Catalogues

☐

Drawings

☐

Samples

☐

Other

Contractor's Authorized Signature with stamp:

NAME : AMAL SHAJEE (MEP)

SIGNATURE :

DATE :

20.02.2016

Engineer's Comments:

1. Certificate of origin to be produced for delivered material.

2. Work upto be done at site and get clearance from consultant before starting of activities.

☐ Archt.☐ Str. Engr.☐ M. Engr.☐ E. Engr.**Approval Status:**☐

Approved

☒

Approved with comments

☐

Not approved

☐

Rejected

Project Manager Signature with stamp:

Project Engineer:

Date:

Project Reference List

Project Reference List for Barton



PROJECT DETAILS	YEAR	MAIN CONTRACTOR	CONSULTANT
• UAE Pavilion at EXPO 2020	2018	Arabtec	Calatrava International LLC
• Blue Waters Island	2018	ALEC Building Construction	WSP
• Ajman City Center	2018	Transgulf	WSP
• Bvlgari Resort	2017	ALEMCO	WSP
• EXPO 2020 - Al Wasl Plaza	2018	Laing O' Rourke	Adrian Smith & Gordon Gill
• EXPO 2020 - Sustainability Pavilion	2018	Al Futtaim Carrilon	Grimshaw Architects
• Route 2020 Metro - Expo Link	2018	Berskan	Parsons
• Maktoum International Airport Passenger Terminal Expansion	2018	Dar Al-Handasah	AE Arma/Future Power Electromechanical
• Al Ahli Stadium Expansion	2018	Al Turath Contracting	OBE Architects
• Big Box Retail	2018	Al Futtaim Engineering	Mario Associates
• YAS Acre Development	2018	Trojan General Contracting	AECOM
• Waters Edge	2018	Trojan General Contracting	ATKINS
• Masdar City Center	2018	Amana Contracting	KEO International Consultants
• Al Nour Hospital	2018	Royal International Construction	KEO International Consultants
• Sahara Mall Expansion Sharjah	2018	Darwish Engineering Emirates	Dewan Architect + Engineer
• Abu Dhabi Airport Expansion- ETHIHAD terminal	2017	ALEC/ALEMCO	GHD
• Commercial and Residential Building at DSO-Dubai	2017	Square Meter Construction	Eng. Adnan Saffarini Office
• Al Bayt Stadium - Al Khor City	2017	Galfar-Salini-Impregilo-Cimolai JV	KEO International Consultants
• ENOC Filling Station Al Barsha	2017	Beaver Gulf	BH. NS Engineering Consultants
• Neuro Spinal Hospital and Radiosurgery Center	2017	Green Modeling Contracting	Cubic Engineering and Consultancy
• Residential Building	2016	Belhasa Engineering and Contracting Co.	DAR: Design & Architecture Bureau Consulting
• Warehouse & G+M Office	2016	Agnice Contracting	Design House Engineering Consultancy
• Passenger Terminal Building Expansion	2016	ALEC Building Construction	DAR: Design & Architecture Bureau Consulting
• Back Bone Infrastructure & Supporting Pump Stations	2016	China State Construction & Engineering Corp.	KEO International Consultants
• Commercial Building at Business Bay	2015	United Engineering Construction	Al Ajmi Engineering Consultants
• Lulu Hypermarket Sharjah	2015	Al Qabdash Building Contracting	QHC Architects and Engineers
• Al Zorah Golf Community	2015	Prestige Construction	NAGA Architects
• Construction of 5 Filling Station	2014	GNCO Contracting Co.	ADNOC Engineering & Projects Division
• Remraam Housing Project	2014	Engineering Contracting Co.	Khatib & Alami
• Arabian Ranches	2013	ECC: ENGINEERING CONTRACTING CO.	AL GURG CONSULTANTS
• Al Amal Psychiatric Hospital (Dubai)	2013	China State Construction & Engineering Corp.	HDP Overseas Limited
• Dragon Mart Hotel	2013	Kele Contracting	Dar al Handasah Shair and Partners
• Pearl Jumeira Development	2012	Binladin Contracting Group	M/s. MERAAS
• NDC Labour Camp	2012	Discovery General Cont.	ADNOC Engineering & Projects Division
• Kizad Prebuilt Warehouse	2012	Systems Construct	ADPC Engineering & Projects Division
• Khalifa Port & Industrial Zone	2011	Larsen & Toubro Limited	Mouchel International
• Sea View Club Hotel	2011	Inter Mass Engineering and Cont.	Al Wasl , Al Jadeed Consultants
• Investigation and Drugs Building, Al Ain	2011	Reem Dubai Contracting LLC	BD & S Middle East
• Al Raha Beach Hotel Ext.	2010	National Projects and Construction	Rafik El Khoury & Partners
• Dubai International Airport Expansion Phase II	2009	Dar Al-Handasah	ADPI

