LINYI QUEEN SCAFFOLDING TUBE

QUEEN
SCAFFOLD MANUFACTURE

www.scaffolding-in-china.com

Scaffolding Tube

Fine craftsmanship, beautiful cut surface. High hardness, not easy to corrode.

Linyi Queen Scaffolding Do Daily Steel Coil Raw Material Test and Finished Scaffolding Tube Test. In Addition to the Factory's Internal Quality Inspection, But Also Through the International Certification of The Third Party Testing,This Dail Quality Control and Test Ensure Your BS1139 Scaffolding Tubes Compliance With Both BS Standard and Oil Gas Companies Standard.

SCAFFOLDING TUBE

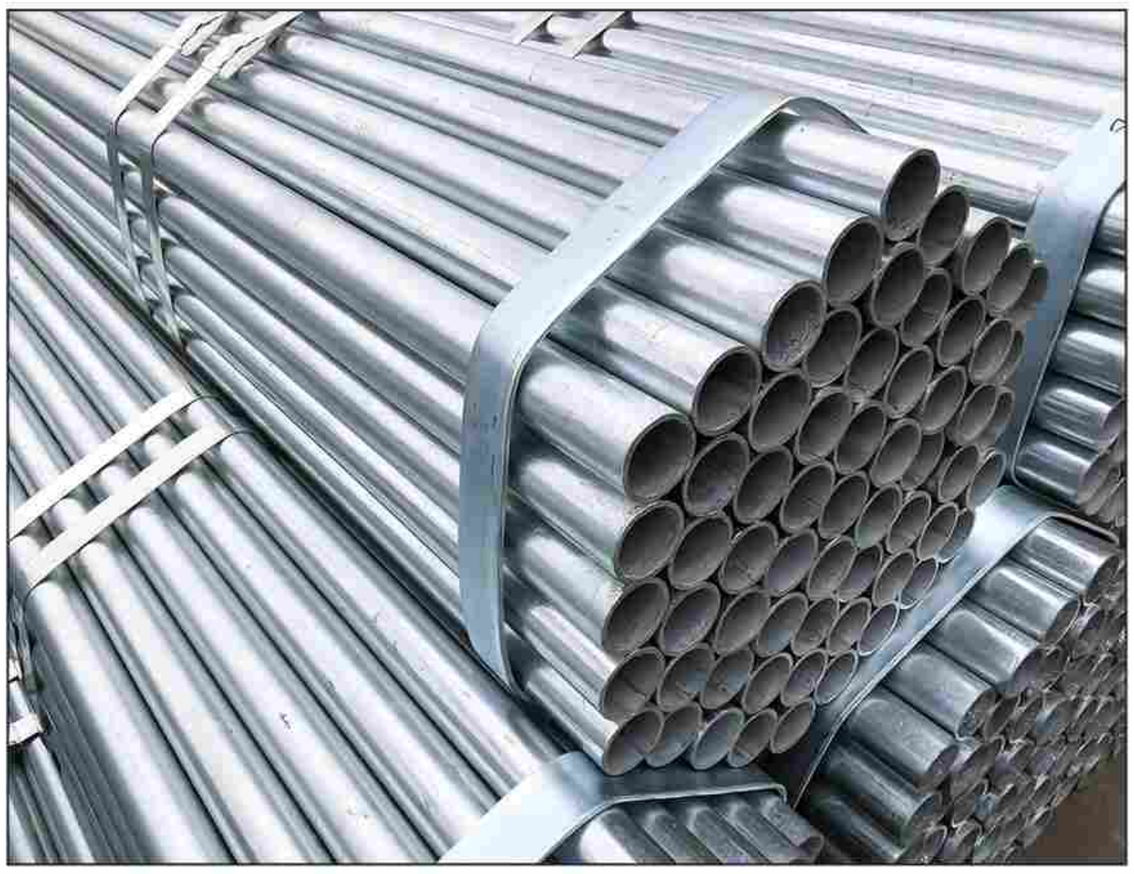
SCAFFOLDING TUBE	
Size(mm)	48.3x3.2mm/48.3x4.0mm
Length(mm)	6000/6400mm
Type 4 tube	Tube of 4.0mm specified wall thickness
Type 3 tube	Tube of 3.2mm specified wall thickness
EN39	2011 Standard

Linyi Queen Scaffolding Supplies 48mm Diameter Scaffolding Tubes in 4mm Thickness for Most Oil Gas Scaffolding Projects.

TUBE MARKING:BS EN 39 4MM

1 pcs/ Meter

SCAFFOLDING TUBE



SCAFFOLDING TUBE

SGS TEST REPORT-BS EN 39:2001 SECTION10.2

SGS

TEST REPORT

scan to see the report

BJIN2308000495ML01

No. : BJIN2308000495ML01_EN

Date : 2023-08-24

Page: 1 of 3

CUSTOMER NAME: LINYI QUEEN IMP&EXP CO.,LTD

ADDRESS: TAISHENG GELAN CENTER 18F,NANJING ROAD, LANSHAN DISTRICT, LINYI CITY, SHANDONG PROVINCE, CHINA

Sample Name	:	Steel Tube
Product Specification	:	Nominal diameter 48.3mm, wall thickness: 4.0mm
Material and Mark	:	S235

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

****

Test Required	:	Tensile Test,Flattening Test
Date of Receipt	:	2023-08-18
Testing Period	:	2023-08-18 ~ 2023-08-24
Test result(s)	:	For further details, please refer to the following page(s) (Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
SGS-CSTC Standards Technical Services Co., Ltd..

Stacie

Stacie Xiang
Authorized signatory

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SGS TEST REPORT-BS EN 39:2001 SECTION10.2

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TEST REPORT

No. : BJIN2308000495ML01_EN
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Page: 2 of 3

1. Tensile Test

Test Method:BS EN ISO 6892-1:2019

Test item	Specimen type	Tensile strength (R_m) (MPa)	Proof strength ($R_{P0.2}$) (MPa)	Elongation after fracture(A) L_o =5.65$\sqrt{So}$ (%)	Con.
Req.	-	340~520	235	≥24	-
Result-001	Tubular Strip specimen	449	388	29.5	Pass

Note: The requirement is specified in BS EN 39:2001 Steel grade S235GT.

2. Flattening Test

Test Method: BS EN ISO 8492:2013

Sample	Sample specification (OD×WT) (mm)	Test step	Distance between flattening plates (H) (mm)	Result-001	Con.
001-90°	48.3×4	First	34.5（≤75% OD）	No cracks or flaws observed (The tube)	Pass
		Second	24.5（≤60% OD）	No cracks or flaws observed (in the metal elsewhere than in the weld)	Pass

Note: The requirement is specified in BS EN 39:2001 Section 10.2.

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SGS TEST REPORT-BS EN 39:2001 SECTION10.2

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TEST REPORT

No. : BJIN2308000495ML01_EN

Date : 2023-08-24

Sample Photo

Unless otherwise stated, this report provides a declaration of conformity according to whether the test results are within the specified limits or specifications without considering the measurement uncertainty.

********End of report********

In the territory of the People's Republic of China, the test report with CMA logo expresses that the test items are within the scope of China Metrology Accreditation(CMA); without CMA logo expresses that part/all of the test items are not within the scope of China Metrology Accreditation(CMA), and just for client internal reference.

CE

Certificate – Certificat – 증명서 – 證明書 – Сертификат – Certificado

Form QAT_10-M05, version 02, effective since September 5th, 202

Certificate

No. 4Z230615.LQITU65

Certificate's Holder: Linyi Queen Imp & Exp Co., Ltd.
Iec 1712 Shanghai Road Lanshan District Linyi City
Shandong Province China

Certification ECM Mark: Type Approved

Product: Scaffolding
Brand: LINYI QUEEN
Model(s): Scaffolding Tube 48.3x4.0mm
48.3x3.75mm,48.3x3.25mm
Double coupler 48.3mm
Swivel coupler 48.3mm
Toe board coupler 48.3mm
Sleeve coupler 48.3mm
Putlog Coupler 48.3mm
Half coupler 48.3mm

Verification to: Standard:
BS EN 39:2001, BS 1139-1.2:1990, EN 74-1:2022,
EN 74-2:2022

Remark:
The manufacturer has voluntarily decided to submit its documents concerning the above-mentioned product for verification. Ente Certificazione Macchine confirms that the documentation made available and immediately returned to it, as containing sensitive data, meets the essential requirements of the above-mentioned directives. The verification activity carried out exclusively concerned the technical documentation and no verification was carried out on the product. This document cannot replace the EC Declaration of Conformity. The above conformity mark can be affixed to the technical documentation in accordance with the ECM regulation on its issue and use, published on the website www.entecerma.it

Date of issue 15 June 2023

Expiry date 14 June 2028

For online check:

Approver
Ente Certificazione Macchine
Legal Representative
Luca Bedonni

Ente Certificazione Macchine Srl
Via Ca' Bella, 243 – Loc. Castello di Serravalle – 40053 Valsamoggia (BO) - ITALY

Difference Between EN39 & BS1139 Scaffold Standard

In the scaffolding industry, different countries have their own scaffold standards. For example, the ANIS standard is the USA standard,
the CSA standard for Canada standard,
the AS standard for Australia and New Zealand,
the JIS standard is for Japan,
the KS standard for Korea,
the SANS standard for South Africa,
the SS standard for Singapore. BS and EN standard Europe countries, etc.
Among them, BS EN standards are widely used globally wide. It is a British standard originally from the UK and widely used in whole European countries, then other countries.
Till now, a lot of countries buy scaffolding materials according to BS EN standards. In the BS EN standards, the most popular two standards are BS1139 and EN 39 standards. Both of them are used for scaffold tube quality judgment.
Some world-class oil gas companies have their internal scaffolding standards, like the Saudi Aramco scaffold safety handbook, Shell DEP standard, KOC scaffolding standard, KNPC standard, etc. But the basic original of these oil gas companies ‘ standards requirements is from the BS 1139 and EN 39 standards.

- **What is the difference between these two leading scaffold standards?**
- **How to choose scaffold standards for the scaffold material?**

What is BS1139:1990 Standard?

The BS1139: 1990 includes a series specifying the requirements for the design, construction, and testing of equipment for use in scaffolding and other temporary structures. It specifies requirements for steel tubing of the type traditionally used in tubular scaffolding and false work. Recommendations for the design of tubular scaffolding structures are given in BS 5973 and BS 5974. This standard was previously published as Part 1 of BS 1139:1982 which also contained specifications for aluminium scaffold tubes. With the exception of specifying one wall thickness only (i.e. 4 mm), this standard technically aligns with European Harmonization Document HD 1039. Tubing complying with this British Standard also complies with the requirements for type 4 only of HD 1039 and therefore can be classified and marked “EN 39” (see clauses 8 and 9).

SCAFFOLDING TUBE

BS 1139 is now published in separate Parts and Sections as follows.

01 Tubes

Section 1.1: Specification for steel tube;

Section 1.2: Specification for aluminium tube;

02 Couplers

Section 2.1: Specification for steel couplers, loose spigots and base plates for use in working scaffolds and falsework made of steel tubes (Identical with HD 74);

Section 2.21: Specification for steel and aluminium couplers, fittings and accessories for use in tubular scaffolding;

03 Specification for prefabricated access and working towers

04 Specification for prefabricated steel splitheads and trestles

05 Specification for materials, dimensions, design loads and safety requirements for service and working scaffolds made of prefabricated elements (Identical with HD 1000).

What is EN 39 Standard?

This British Standard is the official English language version of EN 39:2001.
It supersedes BS 1139-1.1:1990 which is withdrawn. This standard includes a tube with a wall thickness of 3,2 mm as well as the previous 4,0 mm. The other principle changes are contained in the European foreword of this standard. The UK participation in its preparation was entrusted by Technical Committee B/514, Access and support equipment, and ISE/8, Steel pipes, to Subcommittee B/514/28, Props, tubes and couplers, which has the responsibility to:
— aid enquirers to understand the text;
— present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
— monitor related international and European developments and promulgate them in the UK.
A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue. A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.
(From EN 39)

BS1139 VS EN 39 Standard

1. In Chemical Components:

BS1139 Chemical Components: Carbon(C), Silicon(Si), Phosphorus(P), Sulphur(S), and Nitrogen(N)

Table 1-Determination of chemical composition of steel by ladle analysis	
Elements	**%**
Carbon	≤0.2
Silicon	≤0.3
Phosphorus	≤0.05
Sulphur	≤0.05
Nitrogen	≤0.009

Table 2 – BS1139 Chemical Composition

EN39 Standard Chemical Components: Carbon(C), Silicon (Si), Manganum(Mn), Phosphorum(P), Sulfur(S), and Aluminum(Al)

Table 1—Chemical composition and Mechanical Properties

Steel grade		Chemical composition (cast analysis), in %, by mass						Mechanical properties		
Steel name	Steel number	C max.	Si	Mn max.	P max.	S max.	Al min.	Yield strength R_{eH} min MPa [1]	Tensile strength R_m MPa [1]	Elongation A min %
S235GT	1.0106	0.20	a,b	1.40	0.040	0.045	0.020	235	340/520	24

a ≤ 0,05 % (range 1) (≤ 0,04 % if option 2 is specified) or ≥ 0,15 %≤ 0,25 % (range 2).

b When bare tubes are specified (see option 8) the range shall be reported at the time of enquiry and order.

Table 3 – EN 39 Chemical & Mechanical

You can find that BS1139 standards give the requirement of N, while EN 39 scaffold standards give the requirement of Al in chemical composition.

EN 39 Mechanical Property(See Above Table)

– Yield Strength: Min 235 MPa
– Tensile Strength: 340-520 MPa
– Elongation: Min 24%

BS1139 Mechanical Property (See Table 4)

– Yield Strength: ≥ 235 MPa
– Tensile Strength: 340-480 MPa
– Elongation:≥ 24%

Table 2— Mechanical properties

The mechanical properties of the tube shall be in accordance with Table 2.

Tensile strength	R_m	N/mm²	≥340 <480
Yield stress	R_{eH}	N/mm²	≥235
Elongation	A		≥24%
(on $L_0=5{,}65\sqrt{S_o}$)[a]			

[a] In accordance with BS 18
L_0=original gauge length of the tensile test piece.
S_0=original cross-sectional area of the gauge length.

Table 4 – BS1139 Mechanical Property

Thus for mechanical properties, EN 39 scaffold standard requires 40 MPa higher than BS1139 on tensile strength property.

3 Tolerance Requirement Comparision :

Items	EN39	BS1139
Outerside Diameter	±0.5mm	
Inside Diameter	Allow Insert Guage 37.7mm diameter	40.3mm -2.6mm
Wall Thickness	– 10% Seamless -15%	– 10%
Mass	-7.50%	– 10% 4.37KG/M +12% – 8%
Length(Exact)	0/+10 (≤6m)	

4 EN 39 and BS1139 Standard Requirement On Marking

EN 39 Marking Requirement:

(1) the number of this European Standard (EN 39);

(2) the name or trade mark of the manufacturer;

(3) the thickness type, 3 or 4.

Example of die marking – EN 39 xxx 4.

xxx = name or trademark of manufacturer

BS1139 Marking Requirement:

Tubes shall be marked by impressing at intervals not exceeding 1,5 m. The height of the characters shall be at least 4 mm and the impression at least 0,2 mm deep.

The marking shall show

— the name or trade mark of the tube manufacturer;

— the EN number “39”,

— the letter “A” or “B” for silicon content as appropriate;

— the nominal wall thickness “4”, which shall not be positioned immediately adjacent to the number “39”.

5 Cost Comparision:

EN39 Scaffold Steel Tube Cost is more Expensive Than BS1139.

6. For Different Types of Scaffolding Pipes

BS1139:1990 standard is main for 4.0mm scaffold tubes.
EN39 standard is for both 4.0mm and 3.2mm scaffold tubes

How to Choose EN 39 or BS1139 Standards

BS1139:1990 standards are normally for 4.0mm wall thickness scaffold tubes.
If you want a type 4(4.0mm) scaffold tube, can use the BS1139 standard.
En 39 standards have requirements for both 3.2mm and 4.0mm scaffold tubes.
Thus you can choose the right standard for your scaffold tube specifications.
The aluminum chemical composition makes the scaffolding tubes more toughness. Thus EN39 scaffold tubes are suited for low-temperature countries. They need less hardness in cold weather.

BS1139 is cheaper in cost. Thus if you want to save cost, can choose the BS1139 standard.

EN39 Scaffolding Pipe Size&Specification

EN39 Scaffolding Pipe Size&Specification			
NO.	Items Code	Size(ODxTHxL)	Weight(KG)
1	0.5m EN39 Scaffold Tube	OD48.3x4.0mmx0.5m	2.19
2	0.7m EN39 Scaffold Tube	OD48.3x4.0mmx0.7m	3.07
3	1.0m EN39 Scaffold Tube	OD48.3x4.0mmx1.0m	4.38
4	1.2m EN39 Scaffold Tube	OD48.3x4.0mmx1.2m	5.26
5	1.5m EN39 Scaffold Tube	OD48.3x4.0mmx1.5m	6.57
6	2.0m EN39 Scaffold Tube	OD48.3x4.0mmx2.0m	8.76
7	2.5m EN39 Scaffold Tube	OD48.3x4.0mmx2.5m	10.95
8	3.0m EN39 Scaffold Tube	OD48.3x4.0mmx3.0m	13.15
9	3.5m EN39 Scaffold Tube	OD48.3x4.0mmx3.5m	15.34
10	4.0m EN39 Scaffold Tube	OD48.3x4.0mmx4.0m	17.53
11	4.5m EN39 Scaffold Tube	OD48.3x4.0mmx4.5m	19.72
12	5.5m EN39 Scaffold Tube	OD48.3x4.0mmx5.5m	24.10
13	6.0m EN39 Scaffold Tube	OD48.3x4.0mmx6.0m	26.30
14	6.4m EN39 Scaffold Tube	OD48.3x4.0mmx6.4m	29.05

SCAFFOLDING TUBE

APPLICATION IN CONSTRUCTION AND OIL&GAS FIELDS

SCAFFOLDING TUBE

APPLICATION IN CONSTRUCTION AND OIL&GAS FIELDS

COUPLERS

Forged Fixed Coupler	
LQFFC980	
48.3×48.3MM	0.98KG

Forged Swivel Coupler	
LQFSC1120	
48.3×48.3MM	1.12KG

Single Putlog Coupler	
LQSPC650	
48.3MM	0.65KG

Double Putlog Coupler	
LQDPC800	
48.3MM	0.8KG

Forged Board Retaining Coupler	
LQFBRC620	
48.3MM	0.62KG

Forged Half Coupler	
LQFHC550	
48.3MM	0.55KG

SCAFFOLDING TUBE

COUPLERS

Forged Internal Coupler	
LQFIC1100	
48.3MM	1.10KG

Forged External Coupler	
LQFEC1040	
48.3MM	1.04KG

Swivel Girder Coupler	
LQSGC1600	
48.3MM	1.60KG

Fixed Girder Coupler	
LQFGC1500	
48.3MM	1.50KG

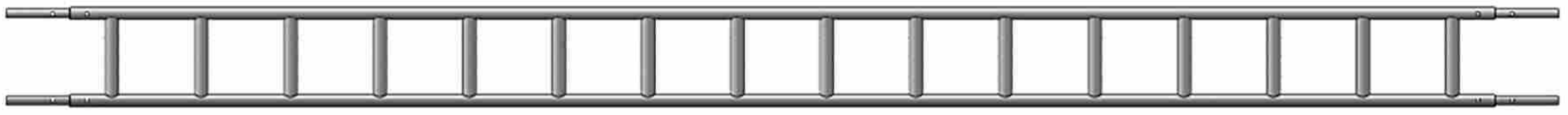
Forged Jordan Coupler	
LQFJC650	
48.3MM	0.65KG

Ladder Coupler	
LQLC800	
48.3MM	0.80KG

LADDER BEAM

Manufactured from Q235 3.8mm grade tube to create a strong ladder beam. Available in self colour or galvanised and standard sizes as below.Tested to BS EN 12811
Width:305mm;

LADDER BEAM	
Code	**Length (mm)**
LQ-LB1000	1000
LQ-LB2000	2000
LQ-LB3000	3000
LQ-LB4000	4000
LQ-LB5000	5000
LQ-LB6000	6000



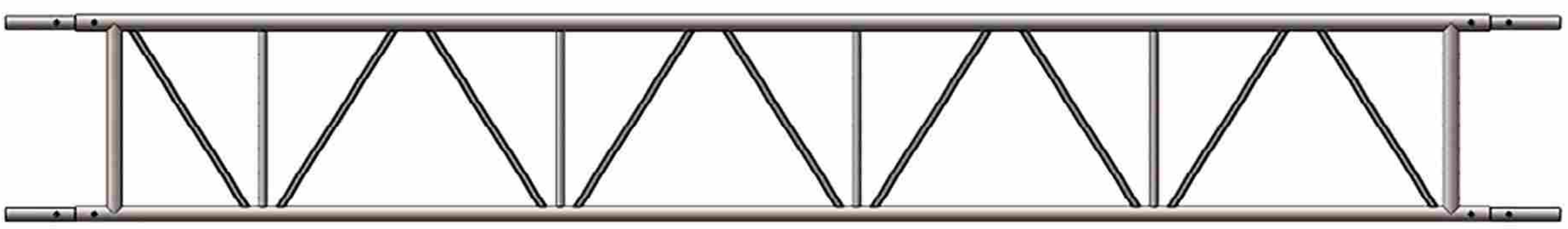
UNIT BEAMS

The Unit Beams is high strength, low weight and has maximum versatility.

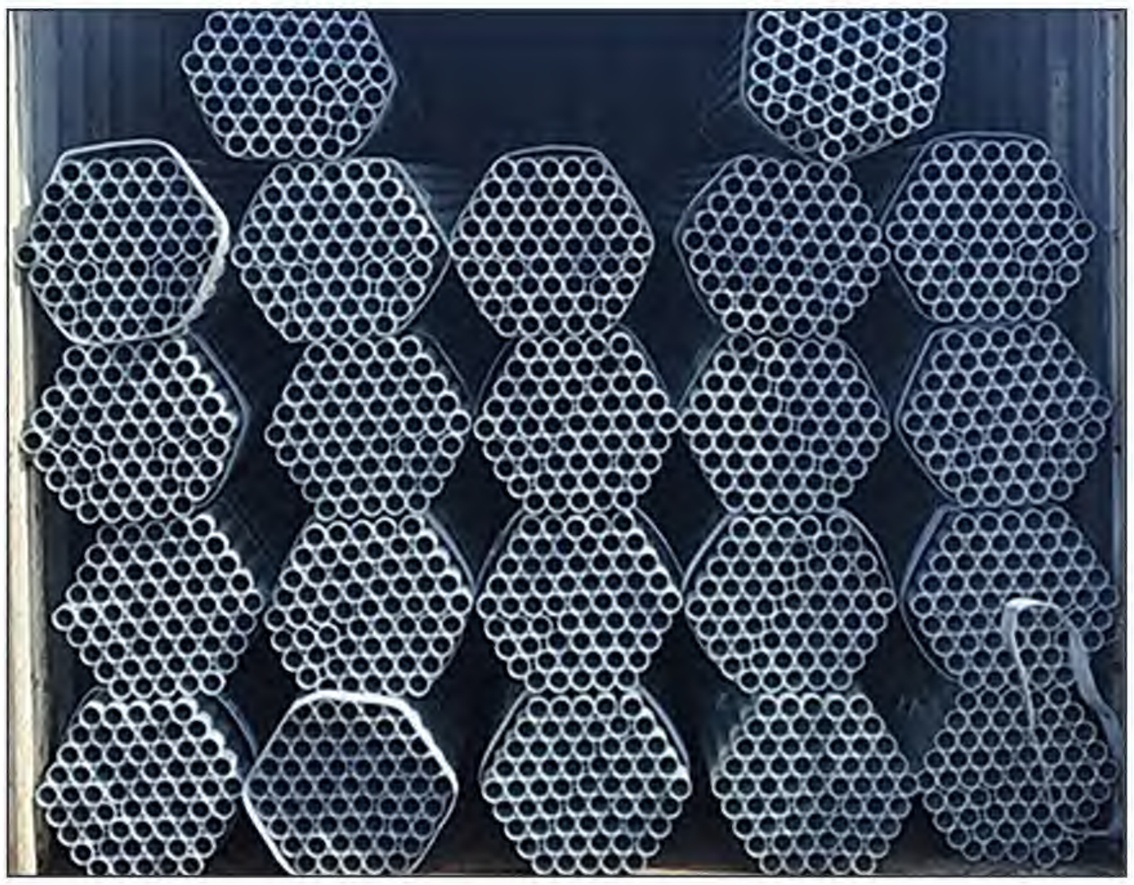
The lengths from 1m to 6m,and standard sizes as below.

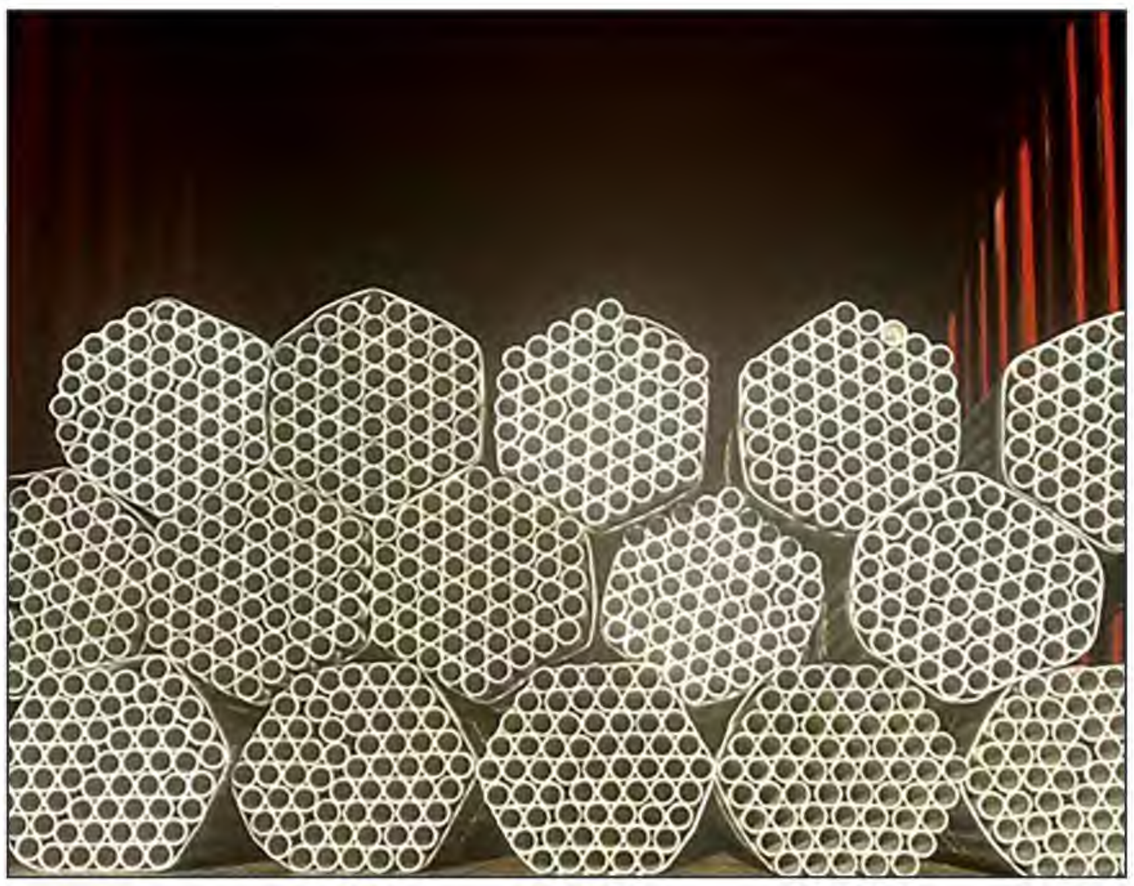
Width:610mm

UNIT BEAMS	
Code	**Length (mm)**
LQ-UB900	900
LQ-UB1000	1000
LQ-UB1500	1500
LQ-UB2000	2000
LQ-UB2500	2500
LQ-UB3000	3000
LQ-UB3450	3450
LQ-UB3700	3700
LQ-UB4000	4000
LQ-UB4500	4500
LQ-UB5000	5000
LQ-UB6000	6000



PACKAGING AND LOADING





QUEEN

SCAFFOLD MANUFACTURE

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