CUPLOK SCAFFOLDING & SUPPORT SYSTEM

A PROFILE
Over the past years, BSL, the three times winner of Export Excellency Awards from the Govt. of India, has established itself as the leading organisation in the field of high quality Scaffolding & Formwork systems for the construction & maintenance industry in India and also as a major exporter. Through a network of Joint-Venture Companies and subsidiaries, it is now spread over a lot of part of the world. BSL's reputation has been built up steadily over the years by putting the needs of its customers above every other consideration. Everything we do is designed to help our customers achieve maximum on-site efficiency without compromising safety standards. The success of any construction project depends on how closely you stick to planned time schedules and cost estimates. When you purchase scaffolding or formwork equipment from BSL, you are able to draw the resources of a well-spread service organisation. Regardless of the specific type of equipment and site location, we will work with you to ensure your project to run according to plan. The extensive design and manufacturing resources of BSL give us the ability to develop or adopt products quickly to suit the constantly changing needs of our customers.
CUPLOK’s unique locking action makes it the fastest, safest, most economical & widely-used scaffolding system in the world. The success of CUPLOK lies in the ‘node point’ or fastening method. Four horizontals can be fastened at one time, making a very rigid connection. The horizontals bear directly on to the verticals and are firmly clamped by the action of the top cup. There are no loose parts to lose. CUPLOK is made from the highest quality steel providing great strength while being light and easy to handle. When investing in equipment, it must be as versatile as possible, and BSL CUPLOK is ideal for many applications: formwork, support, general access, circular scaffolding, mobile towers, loading towers and many other uses. CUPLOK is now widely used in industries as diverse as ship building, power plant, refinery maintenance and conservation of monuments. Speed of erection and simplicity are the keys to CUPLOK’s success. Designed to be tough, CUPLOK is highly resistant to damage. BSL CUPLOK will provide you with important cost savings as a result of its speed of erection. It can be erected by unskilled labour, easily stored & maintained and can be used in a variety of applications.

BSL CUPLOK WITH STAIRCASE ARRANGEMENT

**CUPLOK COMPONENTS**

**VERTICALS / STANDARDS**

CUPLOK Verticals, made out of 40 mm NB tubes, are available to suit any propping or access application economically. The Verticals can be used for support or access as required. The connection point is set at 500/1000 mm vertical intervals for maximum versatility in use. The lower cups are welded in position; the upper, moveable cups are retained by a fixed stop. The Verticals are drilled for the fixing of the spigot joint. A bolt can be used to restrain upward forces if required. Available in following sizes:

- 3000 mm
- 2500 mm
- 2000 mm
- 1500 mm
- 1000 mm
- 500 mm

**HORIZONTALS/LEDGERS**

CUPLOK Horizontals, made out of 40 mm NB tubes, are available in a range of standard sizes or can be made to a special length if required. The forged blade end fits in the cup of the Vertical. The simple robust design ensures that Horizontals need no maintenance.

- 2500 mm
- 2000 mm
- 1500 mm
- 1250 mm
- 1000 mm
- 500 mm

**ACCESS SCAFFOLD LADDER**

A simple Latch-on M.S. Ladder suitable for scaffold height of 10-12 metres.

Available in following sizes:

- 2000 mm
- 1500 mm

**OMEGA HOP-UP BRACKETS**

The 1-board, 2-board and 3-board Hop-Up Brackets incorporate the Omega section for locating scaffold boards and attach to the cup joint. In order that the Hop-Up Brackets are correctly positioned, each unit includes a CUPLOK joint to accept Horizontals.

**FIXED BASE/HEAD PLATE**

This component is used either as a base plate at the bottom of a jack to give the necessary spread of load, or when the jack is used at the top of the Vertical as a head plate to accept a Drop Head.

**SPIGOT**

When necessary, Verticals are connected end to end by an internal Spigot. This is bolted to the Vertical.

**STEEL SCAFFOLD BOARDS**

A range of sizes with non-slip working surface which are used with or without the Omega Horizontal to form the lightest of all working platforms.

Available with hooks/without hooks in the following widths:

- 3000 mm
- 2500 mm
- 2000 mm
- 1000 mm

Suitable for various grid sizes.

**TOE BOARD**

Available in different sizes suitable for working platform of various length and width.

**CASTOR WHEELS**

Cuplok castors lock on to the bottom of Verticals. The 200 mm diameter wheels provide for easy movement of mobile scaffold.

**STAIRCASE COUPLER**

**CANTILEVER FRAMES**

At the edges of a building it is often necessary for economy, speed of working and safety to provide a support beyond the edge. The Cantilever frame extends directly to the Vertical at the node points. The frame accepts universal jacks for carrying all types of support forkhead, droplheads etc. This item is invaluable for supporting slab edge formwork. Frames have blade ends for locating in the cup joints and accept jacks in position.

Available in following sizes:

- 1500 mm x 1500 mm
- 1500 mm x 1000 mm
- 1200 mm x 1500 mm
- 1200 mm x 1000 mm

**OMEGA TRANSM/HORIZONTAL**

Omega transom which replaces the tubular horizontals offers a firm location for scaffold boards which are fitted on these specially designed Omega sections thus providing a flat and level decking.

**ADJ. BASE PLATE/STIRRUP HEAD**

The Adj. base plate/stirrup heads provide a method of adjustment which can be used at either the top or bottom of a scaffold support structure. It is used in conjunction with Forkheads and Adaptors and can accept the full loading capability of Cuplok when fully braced.

Range: 45mm to 850mm Adj., comprising various sizes.
CUPLOK AS STAGING

NHAi - Kolaghat Bridge - Bhageeratha Engg. Ltd. (INDIA)

INFOSYS - Bangalore (INDIA)

IMCC - Delhi Metro (INDIA)

FLEXIBILITY IN CUPLOK

The nature of the unique cupjoint makes CUPLOK ideal for circular scaffolding, providing access to cylinders or tanks, particularly on oil refineries, power and chemical plants. Unlike other systems, CUPLOK Ledgers can be positioned in the cup at any angle from 0 degree to 360 degree accommodating any radius or curve without the need for scaffold tube and loose fittings. Bays may either be trapezium shaped or alternately rectangular and trapezium shaped, according to radius.

When it is not possible to locate all horizontals at the same level, the outside horizontals should be moved up 1 m to form the handrail.

CUPLOK AS ACCESS SCAFFOLDING

Restoration of The Taj Mahal (India) using BSL CUPLOK

The complex access requirements of oil, petrochemical and heavy industrial maintenance & construction projects cannot always be met by standard scaffolding. Special problems arise which need special equipment. No matter how difficult the access problem, BSL has the expertise to design, manufacture or adapt equipment to solve it. Its research and development engineers are constantly seeking new ways to overcome problems of access. Engineers are on call to plan the utilisation of CUPLOK & standard scaffolding in unusual applications.

Examples of special application of BSL CUPLOK:
- CUPLOK scaffolding in Boiler (30MW-500MW) Overhaul.
- Ship Manufacture and repair
- Offshore platforms at sea
- Oil / Petrochemical plants
- Power Stations
- Archaeological / Heritage Buildings
- Cement / Steel / Fertilizer Industries

The Lingaraj Temple Bhubaneshwar (India)

Temporary Stadium at Sydney in Australia

Scaffolding for Boiler

Ship Repairs at The Malta Dry Docks using BSL CUPLOK
SAFETY IN CUPLOK

The safety of a scaffold depends on the men who erect it. BSL CUPLOK has been designed with safety built-in, because no loose fittings are required. Lower cups prevent accidental dislodgment of the ledgers, and guardrails are automatically positioned at working platform levels. Strict adherence to the above mentioned factors will greatly contribute to accident prevention.

For your own safety and that of others working on the scaffold, please make sure that the following rules are obeyed.

+ **The Base of the Scaffold:** If the scaffold is on rough or uneven ground, make sure the scaffold is erected on adequate timber sole plates properly banded and levelled.
+ **Platforms:** Make sure the platform contains no trip hazards or projections.
+ **Ladders:** When ladders are used, make sure they stand on a firm base and are securely fixed.
+ **Guardrails and toeboards:** All working platforms where a person is liable to fall, should be fitted with guardrails and toeboards.
+ **Overloading:** Do not overload the scaffold with bricks and other materials. Remember to load materials as close to the verticals as possible.
+ **Bracing and Tying-in:** All scaffolds require adequate bracing and tying-in. No ties should be removed without adequate supervision and if necessary the prior fixing of alternative ties or bracing should take place to ensure the continuing safety of the scaffold.

BSL reserves the right to alter or amend without notice the design and/or specifications of any of the equipment forming parts of the BSL CUPLOK system in the interests of improvements.

OFFICES/ASSOCIATE OFFICES

**Mumbai**
Mumbai

**Pune**
Sanjay Gandhi Complex,
131A/444, New Link Road, Chembur,
Mumbai - 400 099, INDIA
Ph.: 91-22-2893700,
Fax: 91-22-2893800
Email: bsl.mumbai@bssl.com

**Hyderabad**
Plot No. 4, Inq. Syed Road,
Panchavati Colony,
Harnur,
Secunderabad - 500 003, INDIA
Ph.: 91-40-23754217,
Fax: 91-40-23755228

**Bangalore**
"7" First Floor, KTR Arcade,
41/4, Netaji Road,
Firnser Town,
Bangalore - 560 016, INDIA
Ph.: 91-80-25225891
Fax: 91-80-25225891

**Chennai**
PN Complex, Old No. 23, New No. 38,
1st Floor, Room No. 104,
Thambikai Road,
Chennai - 600 033, INDIA
Ph.: 91-44-24971222
Fax: 91-44-24971222

**Kolkata**
The Emporia Building, NH-21,
Near post office,
Bhuraya, Dist. Kolkata - 751 125
Hamchand Pradad, INDIA
Ph.: 91-334-239132
Fax: 91-334-239132

**Delhi**
Plot No. 13 & 104, Sector-7,
SEZUL, Rajpur Industrial Area,
Haridwar, Uttarakhand, INDIA
Ph.: 91-1334-239132
Fax: 91-1334-239132

**Calcutta**
50/1, Laxmi Roy Avenue,
Kolkata - 700 005, INDIA
Ph.: 91-33-33253253
Fax: 91-33-33253253

**Pune**
C/O S.K. Shinde, 31, Nalini II,
Khandepor Colony, Bavdhan,
Pune - 411 022, INDIA
Ph.: 91-20-2656321
Fax: 91-20-2656321

BL Scaffolding Limited
(formerly British Scaffolding (I) Ltd.)
Corporate & Head Office:
4th floor, Marsha, 75-76, Nehru Place,
New Delhi - 110 019, INDIA
Telephone: 91-11-2644511, 26432614, 26407430,
2643751, 3251818, 3250271
Fax: 91-11-26461608
Email: marketing@britishescaffolding.com
Website: www.blscaffoldings.com

The Leading Scaffolding Company

DUBAI
SYDNEY
LONDON
ACCESS SCAFFOLDING

BSL CUPLOK SYSTEM

The leading scaffolding arrangement worldwide, CUPLOK’s unique node point connection makes it the fastest, safest and most versatile scaffolding ever designed.

CUPLOK standards are manufactured from higher grade steel tubes. The connection point is set at 500/1000 mm. The captive mobile cups are made out of malleable Cast-iron to ensure rough site handling, and welded bottom cups are pressed from high quality steel. Loose spigots are used to provide troublefree and stronger connection between verticals.

All ledgers/horizontals have identical forged blade ends, to fit in the cups of the standards.

ACCESSORIES:

- Adjustable Jack : Suitable for providing an adjustment from 75mm to 1250 mm the topbase.
- Cantilever 'A' Frame : Provides additional access for support. Also used for cantilever scaffolding.
- Other accessories : Beam Bracket / Bridging Horizontal / Hop-up Bracket / Omega Transom etc.

FEATURES:

- Cupjoint : Gives rigid connection between vertical and Horizontal member.
- Cup Action : Faster erection, allows 4 horizontal tubes to be fixed or released in a single operation.
- Fixing of top cup : Only hammer required.
- No small loose parts : Losses reduced.
- Removable spigot : Greater flexibility of use.

BSL CUPLAK is patented in India by patents nos 1. Design No. 174190 Date 30.6.97 Class 1 Validity Upto 30.6.2012
2. Design No. 174191 Date 30.6.97 Class 1 Validity Upto 30.6.2012

H FRAME SYSTEM

Consists of welded frames, with 48.3 mm OD verticals, braced together with scissors type cross braces by means of spring clips. Diagonal bracing is provided in alternate bays for scaffold heights up to 20 metres and in all bays for greater heights.

H Frame with 90.3 mm O.D. Verticals are available for staging of heavier structures.

Standard Sizes: H Frame-2000 x 1250, 1500 x 1250, 1000 x 1250 mm.

Cross Braces: Suitable for frame spacing of 2.5, 2.0, 1.5, and 1.0 m, other sizes made available on request.

A.P.U. SYSTEM

Consists of two verticals and one horizontal, both of 48.3 mm OD tube. On verticals, lugs welded at 500 mm centres provide rigid support to horizontal which has built-in three way clamps welded at both ends to take tracing tube connecting units.

Standard sizes-2000 x 1220, 1500 x 1220, 1200 x 1220, 2000 x 1830, 1500 x 1830, 1000 x 1830 mm.

WEDGELOCK SYSTEM

Consists of verticals with wedge housing welded at every 500mm and horizontals with captive wedges welded, both of 48.3 mm OD tubes. A good scaffolding system for repair and construction jobs, where speed and versatility are important. Accessories: Angular Transom, Hop-up Bracket etc.

BSL SCAFFOLDING AS SUPPORT STAGING

CUPLOK, H Frame and A.P.U. scaffoldings detailed above are suitable for use as support staging for various projects like Building, Bridges, Silos, Industrial Structures etc. BSL can provide technical guidance in providing a safe and optimal design of staging for any type of structure. Further, it is recommended that staging is always erected on sound footing/ timber sleepers etc., for proper distribution of load to ground, and ensure that all verticals are in plumb.

BSL SCAFFOLDING FOR INDUSTRIAL MAINTENANCE

BSL Scaffolding Equipment, in particular CUPLOK, is ideally suited for maintenance and repair works in various industries like ship building and repairs, Oil/Petrochemical, Offshore and Power projects including Boiler Maintenance.

BSL RING SCAFFOLDING

TUBE AND FITTINGS SYSTEM

BSL Tube and fittings scaffolding includes a comprehensive range of components which are strong, safe and economical, and are ideally suited for wide application in building construction and maintenance industry.

Scaffold Tube: Steel scaffold tube, black 48.3 mm O.D., Mild steel, continuous weld, conform to IS:1239 or IS:1611, grade YST 210 and BS 1775, grade 13. These are made available in random lengths of 4.5 to 6.0 m, or required cut lengths.

Scaffold Fittings: All scaffold fittings generally conform to Latest IS: 2750 and BS: 1139

Swivel Coupler for any angle joint (other than 90°)
- 40 x 40 mm and
- 40 x 50mm NB

Double Coupler for right angle joint
- 40 x 40 mm and
- 40x50mm NB

Putlog Coupler for two horizontal tubes at right angle 40 x 40 mm NB

Expanding Joint Pin for connecting two tubes and to end 40 x 40 mm NB

Sleeve Coupler for axial connection of two tubes that are subject to bending or axial tension 40 x 40 mm NB

Staircase Coupler

OTHER BSL SCAFFOLD ACCESSORIES

- Access Bracket
- Staircase Coupler alongwith staircase treads & risers
- Castor Wheel
- Safety Equipments
- Scaffold Boards/Jails
- Fixed modular staircases
SLAB SHUTTERING & STAGING ARRANGEMENT

METRIFORM SYSTEM

BSL Metriform is the leading formwork system for the construction of concrete floors and walls. Minimal assembly and dismantling time coupled with a limited number of components highlight today’s most cost effective system. BSL Metriform incorporates the advantages of early striking (enabling early removal of formwork beams and panels while R.C.C. slab remains supported on props with drop-heads) which will dramatically increase output whilst employing less labour more efficiently.

Metriform system can be used with BSL Props for concrete slab at ordinary heights, or with BSL CUPLOK scaffolding for greater heights.

Standard Metriform Beams are available in 2.5, 1.8 and 1.2 m sizes making this system suitable for different grids. Use of special 1.5m beam for support of beam soffit can allow early removal of even beam bottom formwork.

70 mm deep Metriform Universal Panels and Adjuster Panels are manufactured out of (2mmHg) sheets with pressed flanges and stiffler.

BSL Metriform is also made available in a range of specially designed Metriform Beams & Dropheads, which is compatible for use with conventional 38 mm deep Floor/Slab Forms.

ADJUSTABLE TELESCOPIC SPANS

<table>
<thead>
<tr>
<th>Size</th>
<th>Range, Min. (m) Max. (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESO + ESI</td>
<td>1.75 2.70</td>
</tr>
<tr>
<td>ESO + SI</td>
<td>2.35 3.40</td>
</tr>
<tr>
<td>SO + ES</td>
<td>2.40 3.45</td>
</tr>
<tr>
<td>SO + SI</td>
<td>2.46 4.15</td>
</tr>
<tr>
<td>SO + LI</td>
<td>3.05 4.75</td>
</tr>
<tr>
<td>LO + SI</td>
<td>3.15 4.50</td>
</tr>
<tr>
<td>LO + LI</td>
<td>3.15 5.50</td>
</tr>
</tbody>
</table>

Note: No intermediate support to be provided under Adjustable Telescopic Spans.

ADJUSTABLE COLUMN CLAMPS

Ideally suited for a wide range of column sizes, and are usable with both steel or timber shuttering. These clamps have no loose parts. Further interchangeability of arms of different sizes of column clamps makes them extremely versatile.

<table>
<thead>
<tr>
<th>Size/No</th>
<th>Distance between inside of Opposite arms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>300 mm - 765 mm</td>
</tr>
<tr>
<td>2</td>
<td>450 mm - 1070 mm</td>
</tr>
<tr>
<td>3</td>
<td>650 mm - 1370 mm</td>
</tr>
</tbody>
</table>

ADJUSTABLE BEAM CLAMPS

Fastest method of clamping beam formwork and casings. BSL Beam clamps are suitable for use with both steel and timber shuttering.

Interchangeability of arms ensures maximum versatility. Sizes suitable up to beam width of 800 mm available.
WALL FORMWORK & ACCESSORIES

HEAVY DUTY (JA) SOLDIER

ARRANGEMENT

The most advanced and versatile arrangement of its type for wallform
shuttering, Heavy Duty (JA) Soldier
Arrangement is suitable for use for any pour
height up to 4.5m.

Features:
- Modular construction of soldiers in Metric sizes.
- High strength connection between soldier lengths.
- Can be crane-handled.
- Accessories like plumbing foot, stabilizer & walk-way brackets available.
- Possibility of fixing ties at any location along height.
- Compatible for use with BSL Universal Panel,
conventional steel panels & plywooded shuttering.
- Compatible with BSL Heavy Duty Tie System
with loading capacity ranging up to 5T per Ties.
- Highly adaptable for different shapes of walls.

CONVENTIONAL WALLFORM
SHUTTERING

Consists of wallform panels made out of 12 gauge Steel
and M.S. Angle / Flat Frame channel / Heavy Duty
Soldiers, Tubular Channel, Steel & accessories. Panels
supplied in 1.25m & Soldiers in 2.5m heights. For curved
walls, flexible panels are used, and heavy duty soldiers
to be used in place of channel soldiers for single sided
shuttering.

Double Adjuster Panel, Slab Panel, Internal Corner Panel,
External Corner Angle and Lap Angle etc. as also wallform
accessories like Single clip, Double clip, Bridge clip.
Assembly bolt and wedge & clip etc. are used for various
applications of conventional wallform shuttering.

PURPOSE MADE FORMWORK

BSL also undertakes design, manufacture and supply of steel formwork for structures such as Bridges, Dams, Aqueducts,
Precast Concrete Elements etc. and also provides on-site erection guidance and free consultancy.

OFFICES/ASSOCIATE OFFICES

Mumbai
605/606, Santorini Complex, 131/4/444, Rev Link Road, Chakki, Andheri (East) - 400 099, INDIA
Ph.: 91-22-28256098, 28259196, 32499232
Fax: 91-22-28259287
Email: bsl.mumbai@rediffmail.com

Hyderabad
Plot No. 4, Bisr, Syed Road, Panchbati Colony, Tolichowki, Secunderabad, 500 010, INDIA
Ph.: 91-40-27754207, 32999285
Fax: 91-40-27753285

Kolkata
Tirth Ram Bldg, NH-21, Near post office,
Bitra, North 24 Parganas, INDIA
Tel.: 91-33-25989567

Bangalore
C-17th Floor, K.T.K. Arcade,
4114, Netaji Subhash, Fraser Town,
Bangalore - 560 002, INDIA
Ph.: 91-80-25399164
Fax: 91-80-25390115

Chennai
5th Floor, Room No. 101, Tambaram Ext., West Mambalam,
Chennai - 600 033, INDIA
Tel.: 91-44-24836361

Calcutta
85, Jatindra Mohan Avenue, Near
Sundarban Metro Railway Station,
Calcutta - 700 005, INDIA
Ph.: 91-33-25989567
Fax: 91-33-25551061

Dubai
Al Shurooq Tower, 20th Fl., 700 Business Bay,
Downtown Dubai, Dubai, UAE
Ph.: 971-4-3619621
Fax: 971-4-3619622

Sydney
55, Little Lonsdale Street, Melbourne, VIC 3000, Australia
Ph.: 61-3-9658-3800
Fax: 61-3-9658-3801

London
55, Jatindra Mohan Avenue, Near
Sundarban Metro Railway Station,
Calcutta - 700 005, INDIA
Ph.: 91-33-25989567
Fax: 91-33-25551061

BSL Scaffolding Limited
(Formerly B.S. Scaffolding (I) Ltd.)
Corporate & Regional Office:
8th floor, Manisha, 75-76, Nehru Place,
New Delhi - 110 019, INDIA
Telephone: 91-11-26448411, 26432614, 26432704,
26437511, 3251885, 32560714
Email: marketing@britishscaffolding.com
Website: www.britishscaffolding.com

THE LEADING SCAFFOLDING COMPANY