TSS (Total Safety Solutions)

User Manual

Instructions for assembly and use (Method statement)

TSS FLEXIDECK LOADING PLATFORM

www.tss-me.com

Working At Height Specialists
Safe Working Solutions

Contents

Essential safety warnings

User target groups

- This booklet is aimed at all persons who will be working with the TSS product or system that it describes. It contains information on the standard design for setting up this system, and on correct, compliant utilisation of the system.
- All persons working with the product described herein must be familiar with the contents of this booklet and with all the safety instructions it contains.
- Person who are incapable of reading and understanding this booklet, or who can do so only with difficulty, must be instructed and trained by the customer.
- The customer is to ensure that the information materials provided by TSS (e.g. User Information booklets, Instructions for Assembly and Use, Operating Instruction manuals, plans etc.) are available to all users, and that they have been made aware of them and have easy access to them at the usage location.
- In the relevant technical documentation TSS shows the workplace safety precautions that are necessary in order to use the TSS products safely in the usage situations shown.
  In all cases, users are obliged to ensure compliance with national laws, Standards and rules throughout the entire project and to take appropriate additional or alternative workplace safety precautions where necessary.

Remarks on this booklet

- This booklet can also be used as a generic method statement or incorporated with a site-specific method statement.
- Any safety accessories not shown in these illustrations must still be used by the customer, in accordance with the applicable rules and regulations.
- Further safety instructions, especially warnings, will be found in the individual sections of this booklet!

Safety Planning

- Provide safe workplaces for those installing and using the loading platform. It must be possible to get to and from these workplaces via safe access routes!
- If you are considering any deviation from the details and instructions given in this booklet, or any application which goes beyond those described in the booklet, then revised static calculations must be produced for checking, as well as supplementary assembly instructions.

Risk assessment

- The customer is responsible for drawing up, documenting, implementing and continually updating a risk assessment at every job-site.
  This booklet serves as the basis for the site-specific risk assessment, and for the instructions given to users on how to prepare and utilise the system. It does not substitute for these, however.

Regulations; industrial safety

- All laws, Standards, industrial safety regulations and other safety rules applying to the utilisation of our products in the country and/or region in which you are operating must be observed at all times.
- If a person or object falls against, or into, the sideguard component and/or any of its accessories, the component affected may only continue in use after it has been inspected and passed by an expert.

Applicable Rules during all phases of the assignment:

- The customer must ensure that this product is erected and dismantled, reset and generally used for its intended purpose under the direction and supervision of suitably skilled persons with the authority to issue instructions. These persons' mental and physical capacity must not in any way be impaired by alcohol, medicines or drugs.
- TSS products are technical working equipments which are intended for industrial/commercial use only, always in accordance with the respective TSS User Information booklets or other technical documentation authored by TSS.
- The stability of all components and units must be ensured during all phases of the construction work!
- The functional/technical instructions, safety warnings and loading data must all be strictly observed and complied with. Failure to do so can cause accidents and severe (even life-threatening) damage to health, as well as very great material damage.
- The work must take account of the weather conditions (e.g. risk of slippage). In extreme weather, steps must be taken in good time to safeguard the equipment, and the immediate vicinity of the equipment, and to protect employees.
- All connections must be checked regularly to ensure that they still fit properly and are functioning correctly.
  It is very important to check all screw-type connections and wedge-clamped joins whenever the construction operations require (particularly after exceptional events such as storms), and to tighten them if necessary.
- It is strictly forbidden to weld TSS products – in particular anchoring/tying components, suspension components, connector components and castings etc. – or otherwise subject them to heating.
  Welding causes serious change in the microstructure of the materials from which these components are made. This leads to a dramatic drop in the failure load, representing a very great risk to safety.
  The only articles which are allowed to be welded are those for which the TSS literature expressly points out that welding is permitted.

Assembly

- The equipment/system must be inspected by the customer before use, to ensure that it is in suitable condition. Steps must be taken to rule out the use of any components that are damaged, deformed, or weakened due to wear, corrosion or rot.
- Combining our systems with those of other manufacturers could be dangerous, risking damage to both health and property. If you intend to combine different systems, please contact TSS for advice first.
- The equipment/system must be assembled and erected in accordance with the applicable laws, Standards and rules by suitably skilled personnel of the customer's, having regard to any and all required safety inspections.
- It is not permitted to modify TSS products; any such modifications constitute a safety risk.

Transporting, stacking and storing

- Observe all regulations applicable to the handling. In addition, the TSS slinging means must be used - this is a mandatory requirement.
- Remove any loose parts or fix them in place so that they cannot be dislodged or fall free!
- All components must be stored safely, following all the special TSS instructions given in the relevant sections of this booklet!

Maintenance

- Only original TSS components may be used as spare parts. Repairs may only be carried out by the manufacturer or authorised facilities.

Miscellaneous

- We reserve the right to make alterations in the interests of technical progress.

Symbols used

The following symbols are used in this booklet:

Important Note
Failture to observe this may lead to malfunction or damage.

CAUTION/WARNING/DANGER
Failure to observe this may lead to material damage, and to injury to health which may range up to the severe or even life-threatening.

Visual Check
Indicates that you need to do a Visual-Check to make sure that necessary actions have been carried out.

Instruction
This symbol indicates that actions need to be taken by the user.

Tip
Points our useful practical tips.

Reference
Refers to other documents and materials.

Tools for Assembly

Ratchet Spanners M10/M12/M16/M24

Spanners M10/M12/M16/M24

Measuring Tape

Hammer

Note :

- Prior to assembling the platforms on site, ensure that an even and clean area 4m x 8m in dimension is allocated to this operation

•Assembly area must NOT be below any operation where there may be risk of falling debris.

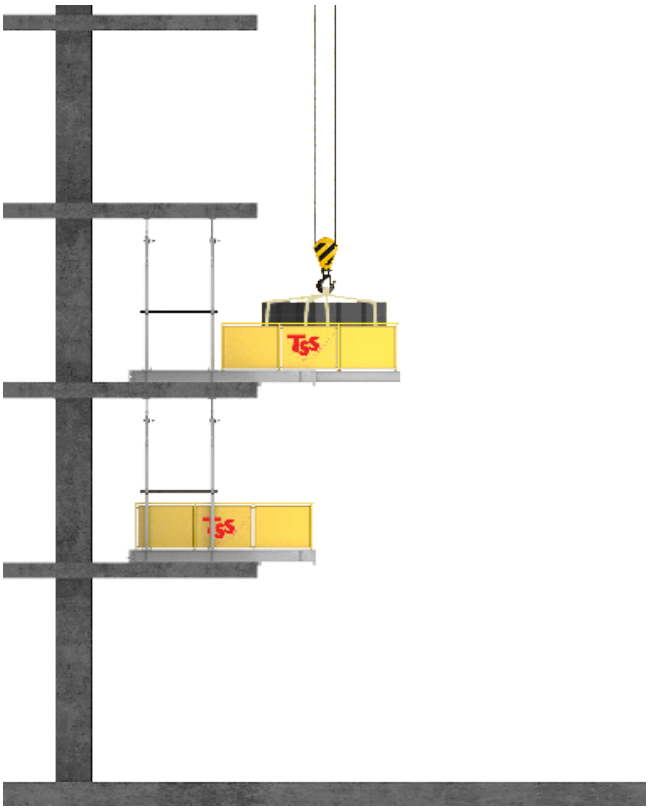
•Installation team must also ensurethat assembly area is accessible by site crane for moving into location.

Introduction

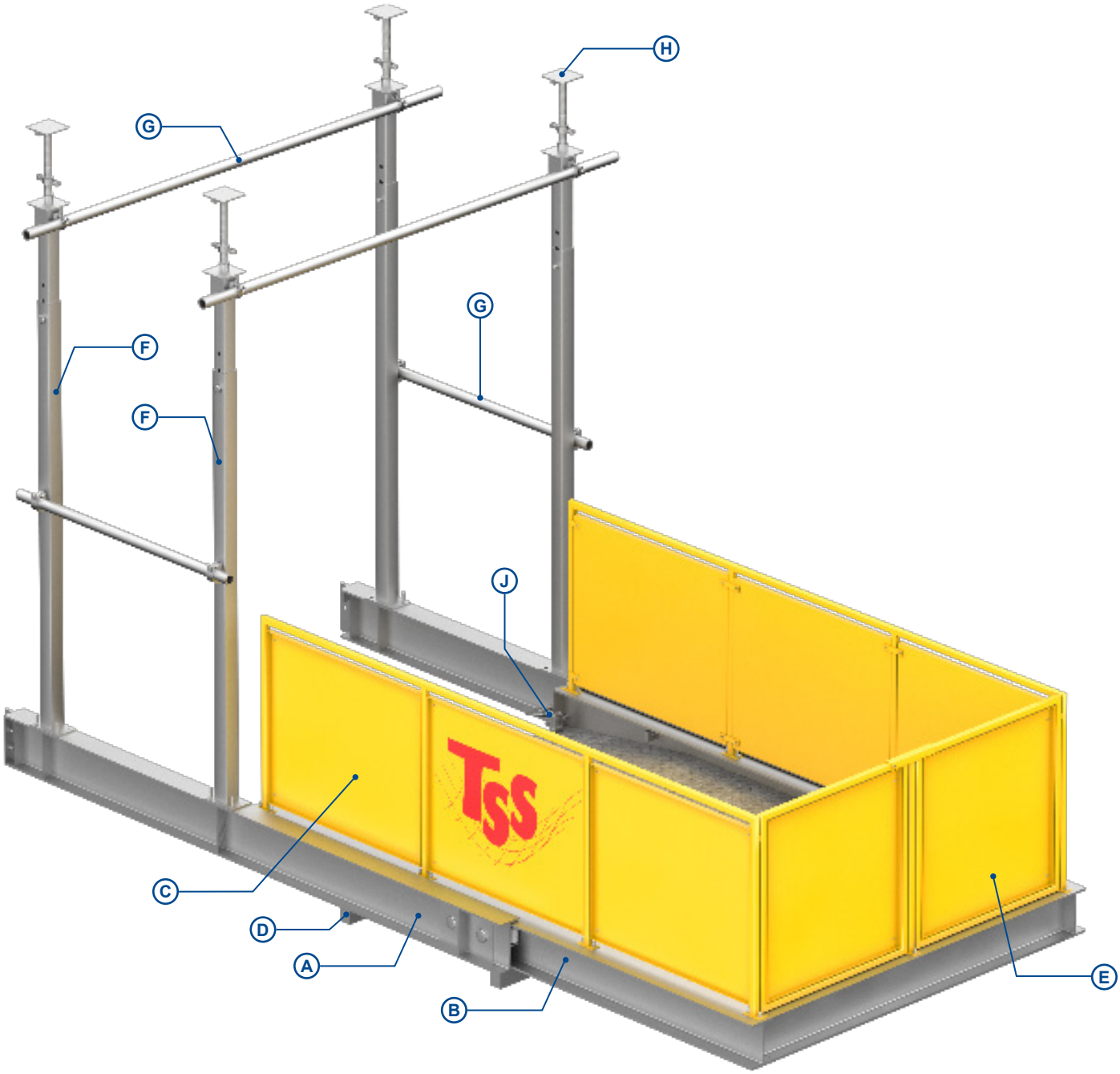
TSS's loading platform stands out for its certified and engineered load capacity ease, safe use and handling, as well as the possibility of adjustment the cantilever.

Improved and optimised site infrastructure

- Safe and efficient material movement
- The retractable platform allows for vertically aligned installation to reduce crane time
- Integrated lifting lugs, telescopic posts, and hinged panels to ensure easy and fast installation
- Manual adjustment of the platform possible by one person
- Reduced transport volume due to stackable units
- Available as telescopic or fixed loading platform with 2.5 and 5.0 to capacity

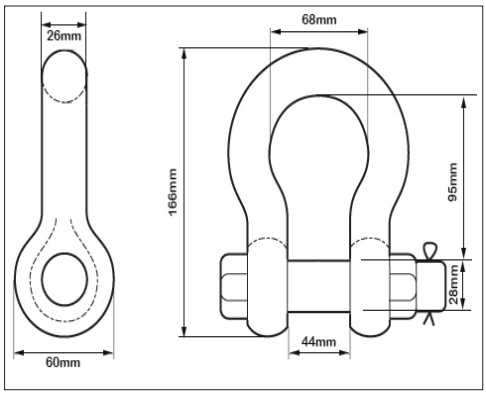


System overview



A	Outer Deck Unit
B	Inner Deck Unit
C	Side Panels & Frame
D	Slab edge guide
E	End Gate
F	Telescopic Leg (Inner-Outer) Assembly
G	Tube Bracing
H	Screw-jack and Top Hat assembly
J	Ramp Pedal & Lock
I	Lifting lugs

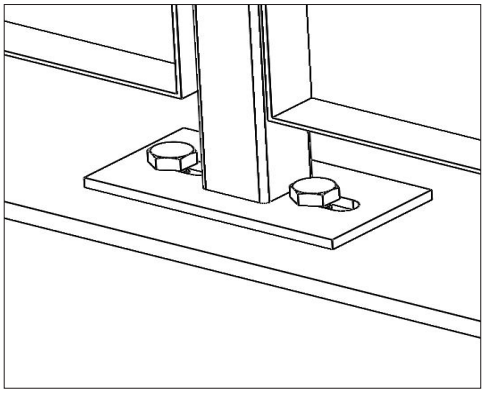
Assembly sequence



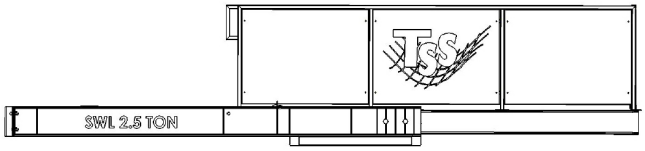
Step 1: Offloading from the truck

Platforms are delivered to site on trucks in stacked position. Off load platforms from the truck, one at a time, using crane. Platforms must be in lock and closed position when being lifted.
Attach crane lifting chains, using a Shackle, to platform lifting lugs and lift in balanced position avoiding any tilting or rotation.

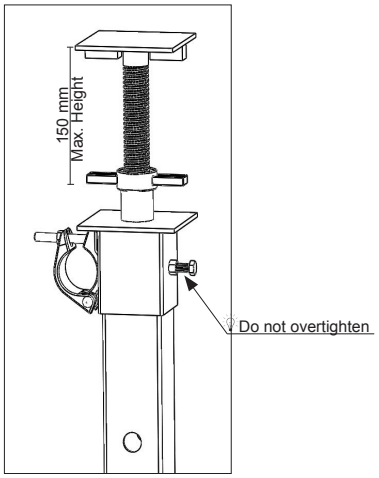
Step 2: Installation of Railing side panels



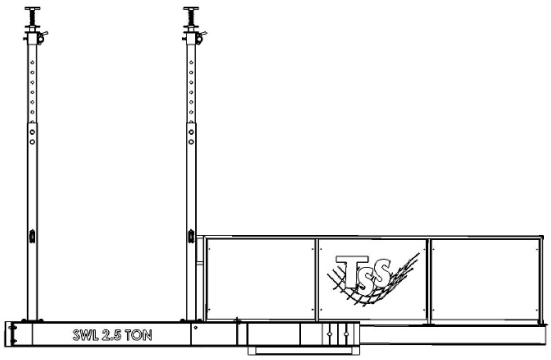
Side panels are connected to platform inner unit using M10x30 Bolt & Nut (18 bolt & nut sets required).
Ensure that side panel company logo is facing outwards and also ensure that safety notes on the side panels are facing inwards.
End gates are locked in position with a double safety lock top and bottom.

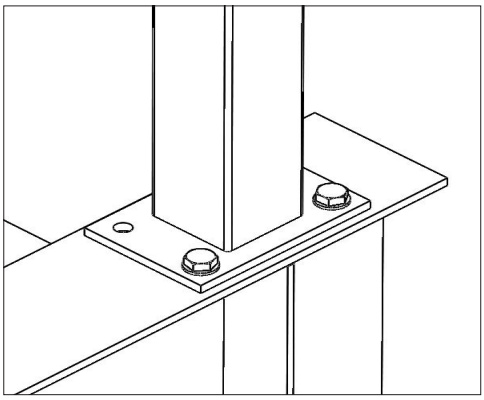


Step 3: Installation of Adjustable props



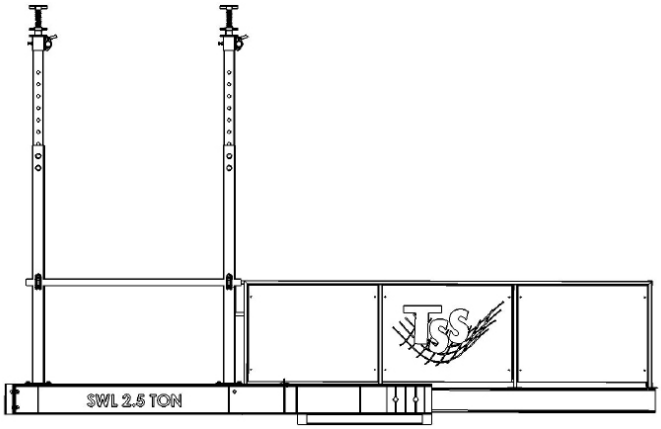
Connect the Prop outer leg to the inner prop leg and adjust to the right height using the pre-drilled holes and the M24x150 Bolts and nuts provided.
Place the Top Hat and Adjustable Jack assembly on top. Bolt the Prop assembly to the outer platform unit using 2 No. M16x50 Bolts and nuts.
Ensure that the overall height from bottom of platform to top of jack is around 100 - 150mm shorter than the floor to soffit height for the floor where the platform is to be installed on.Threaded Jack must be in closed position to allow final adjustment.





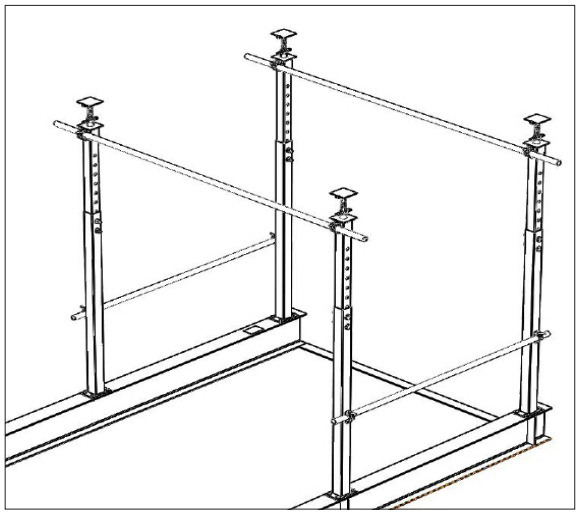
Step 4: Installation of Bracing Tubes

Connect bracing tubes in each specified direction.
Use of spirit level is strongly recommended for correct verticality of the Props.
Open platform out and lock in position. The platform is ready for lifting in position.



Use of spirit level is strongly recommended for correct verticality of the Props.

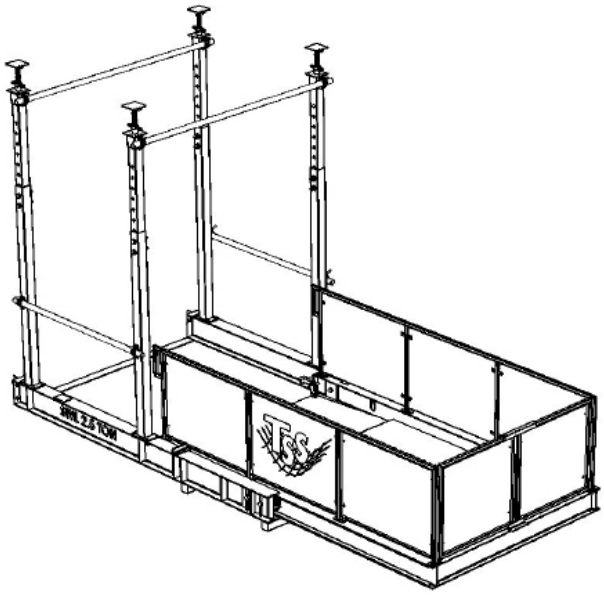
Spirit Level

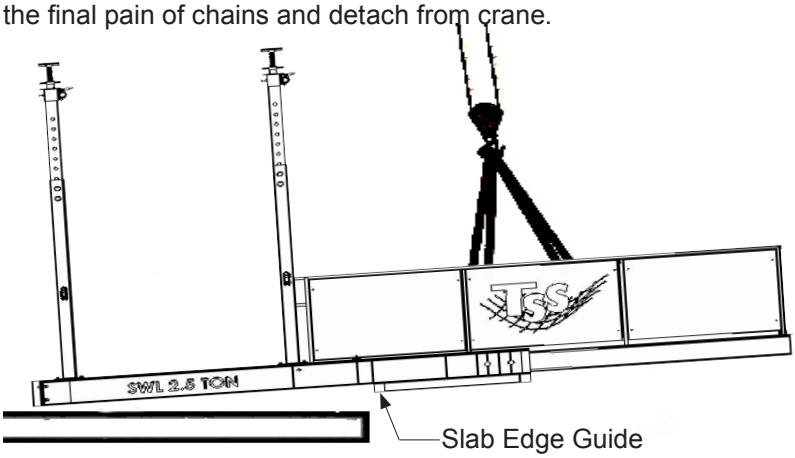


Step 5: Lifting by crane and installation on the concrete slab

Attach a Nylon rope, 3m long, to the inner end of the platform for guiding the platform in when being craned.

Attach Crane to platform lifting lugs using shackles and slowly lift off the ground ensuring no tilting or spinning of the platform. Lift to desired floor level ensuring clearance for the crane chains from formwork or other equipment above. Grab the Nylon rope when within reach using a long hook from a safe position ensuring no worker or material is exposed to any risks of fall by working from behind hand-railing or wearing Fall Protection Equipment. Guide the platform inside the slab ensuring 100-150mm prop clearance from the soffit until the platform is safety seated on the slab with all 4 platform props inside the slab. detach the inner pair of lifting chains to avoid clashing with slab or the equipment above. Whilst connected to the outer pair of chains, guide the platform in, in a controlled manner to the final position.Ensure that the slab edge guide tube underneath is touching the edge of the slab. Tighten all prop jacks fully. When all jacks are tight, you may remove the final pain of chains and detach from crane.





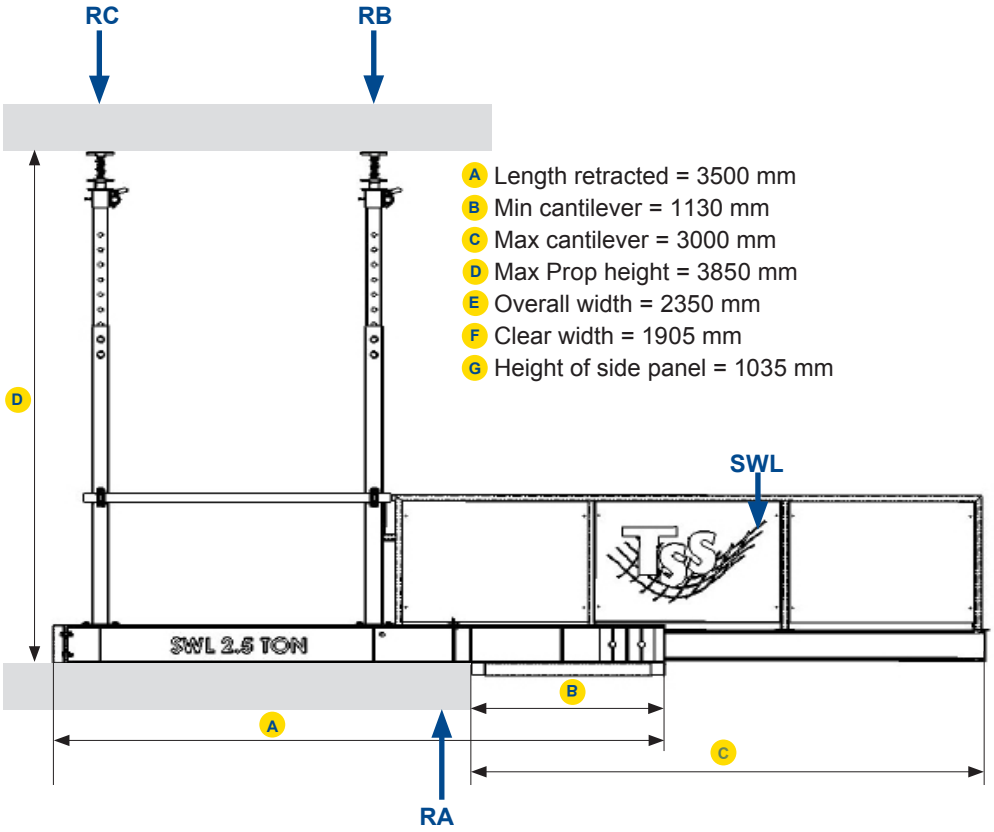
Slab Edge Guide

Retractable Loading Platform 25 kN

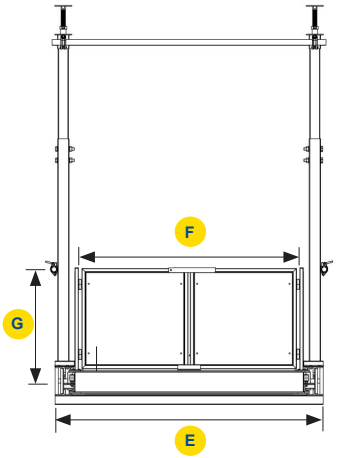
- **Safe Working Load = 25KN**
- **Proof Load to be applied = 37.5KN**
- **Deflection Criteria at 25KN = L/100 (30MM)**

Note :

• Prior to measuring for deflection, the platform MUST first be loaded to SWL. The SWL has to be held for two minutes and then removed. Re-tightening of threaded jacks might be necessary after removal of the SWL. The position of the platform after this test shall be the datum for deflection measurement.



A Length retracted = 3500 mm
B Min cantilever = 1130 mm
C Max cantilever = 3000 mm
D Max Prop height = 3850 mm
E Overall width = 2350 mm
F Clear width = 1905 mm
G Height of side panel = 1035 mm



Load / Reactions	
Outboard	3,000 mm
SWL	25 kN
RA*	57 kN
RB*	35 kN
RC*	2 kN

Reaction Loads are per prop.

For Larger outboard dimensions contact Technical Department.

Structurally designed for a Safe Working Load (SWL) of 25 kN placed centrally and uniformly distributed load on the platform.

Note: RA reaction will change when position of adjustable props are moved backward or forward. Any changes in prop position must be approved by site engineer.

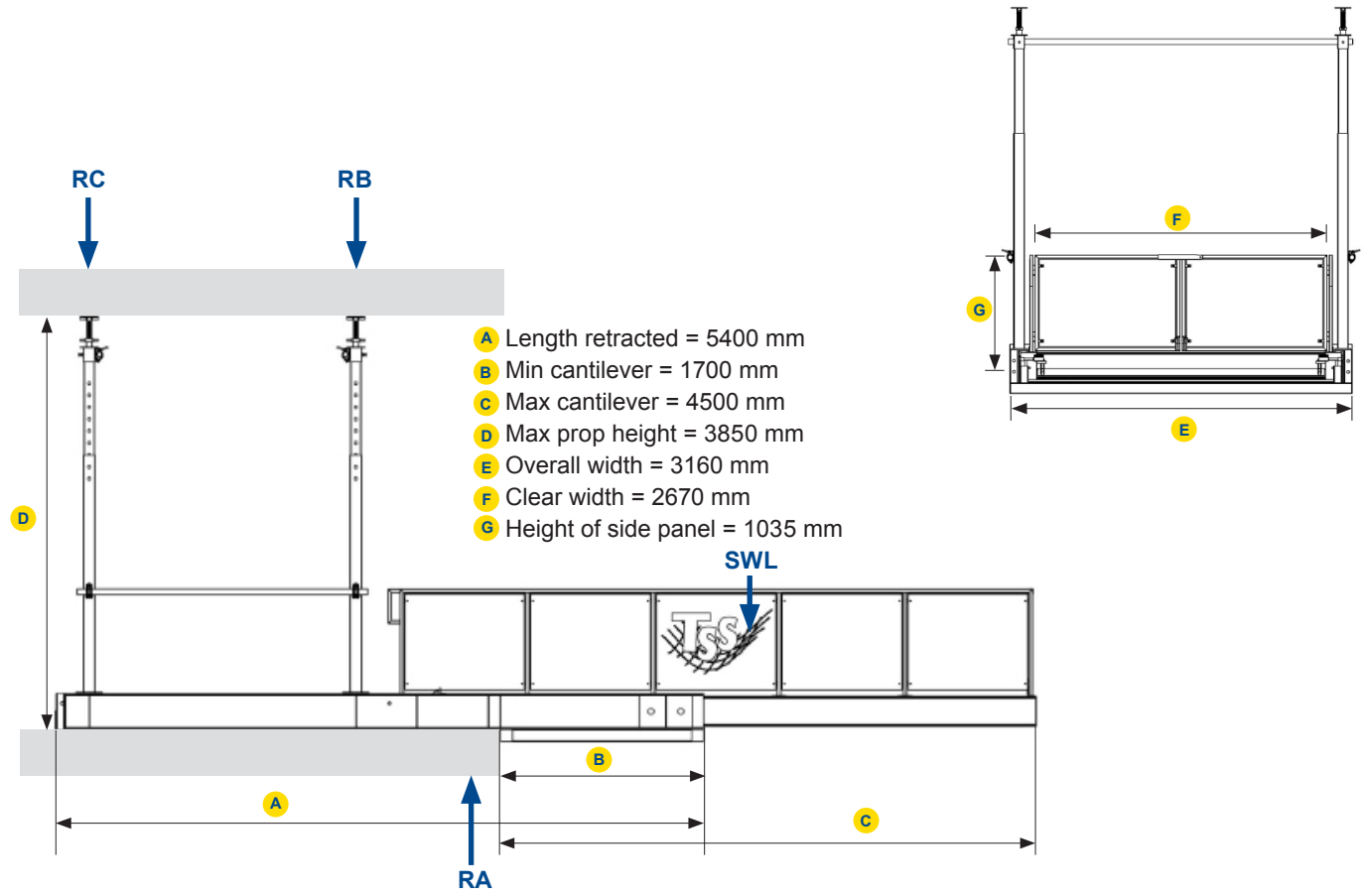
- Assumed load always centered on outboard of the platform
- All loads are static loads (no impact forces factored into reactions)
- All loads are working loads (no load factors applied)
- Horizontal forces not taken into account
- Reactions provided based on rigid supports (effects of deflections of supporting slabs not factored into design)

Retractable Loading Platform 50 kN

- **Safe Working Load = 50KN**
- **Proof Load to be applied = 75KN**
- **Deflection Criteria at 50KN = L/100 (45MM)**

Note :

• Prior to measuring for deflection, the platform MUST first be loaded to SWL. The SWL has to be held for two minutes and then removed. Re-tightening of threaded jacks might be necessary after removal of the SWL. The position of the platform after this test shall be the datum for deflection measurement.



Load / Reactions	
Outboard	4,500 mm
SWL	50 kN
RA*	92 kN
RB*	56 kN
RC*	4 kN

Reaction Loads are per prop.

For Larger outboard dimensions contact Technical Department.

Structurally designed for a Safe Working Load (SWL) of 50 kN placed centrally and uniformly distributed load on the platform.

Note: RA reaction will change when position of adjustable props are moved backward or forward. Any changes in prop position must be approved by site engineer.

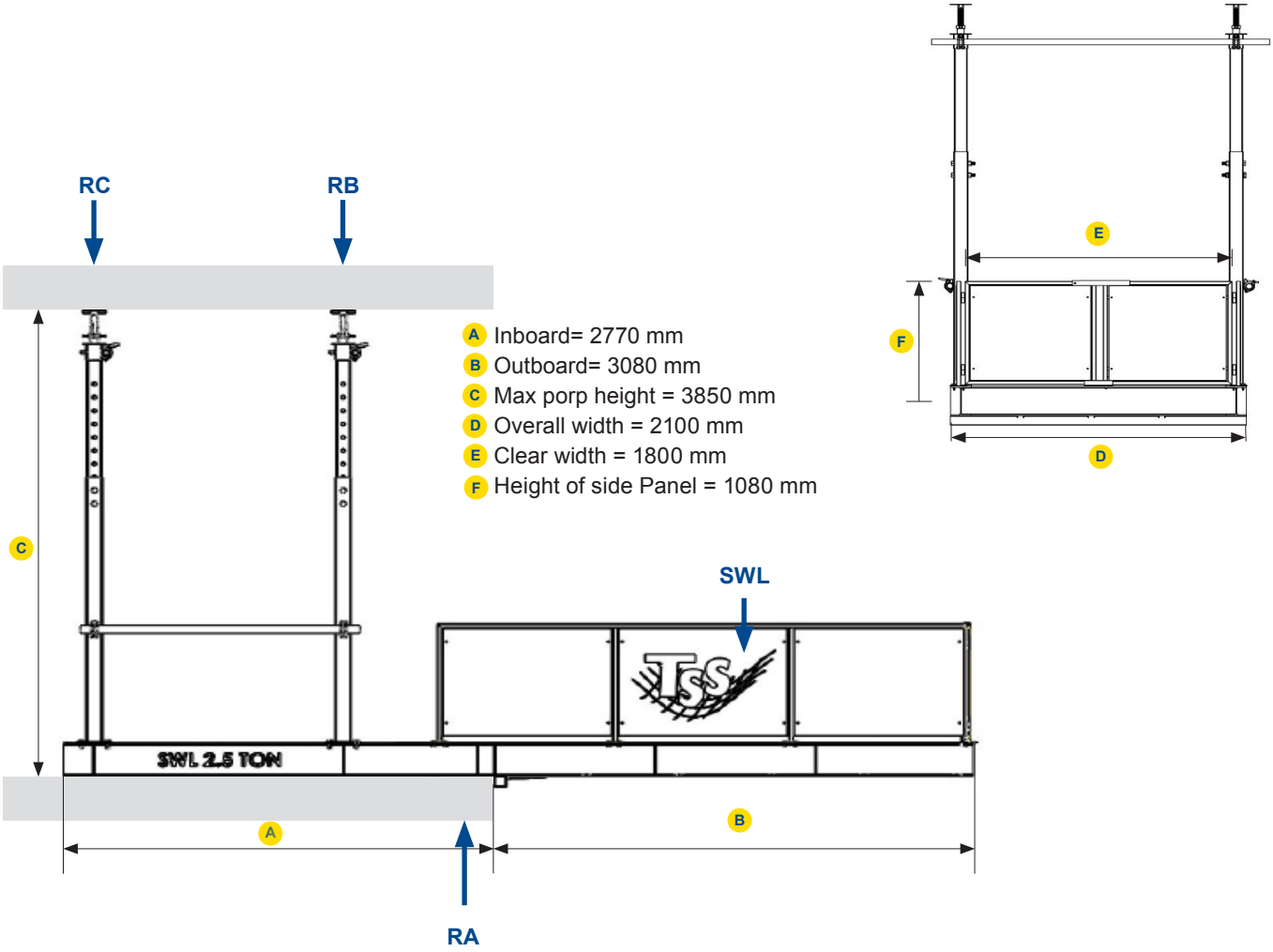
- Assumed load always centered on outboard of the platform
- All loads are static loads (no impact forces factored into reactions)
- All loads are working loads (no load factors applied)
- Horizontal forces not taken into account
- Reactions provided based on rigid supports (effects of deflections of supporting slabs not factored into design)

Fixed Loading Platform 25 kN

- **Safe Working Load = 25KN**
- **Proof Load to be applied = 37.5KN**
- **Deflection Criteria at 25KN = L/100 (30MM)**

Note :

• Prior to measuring for deflection, the platform MUST first be loaded to SWL. The SWL has to be held for two minutes and then removed. Re-tightening of threaded jacks might be necessary after removal of the SWL. The position of the platform after this test shall be the datum for deflection measurement.



Structurally designed for a Safe Working Load (SWL) of 25 kN placed centrally and uniformly distributed load on the platform.

Load / Reactions	
Outboard	3,000 mm
SWL	25 kN
RA*	57 kN
RB*	35 kN
RC*	2 kN

Reaction Loads are per prop.

For Larger outboard dimensions contact Technical Department.

Note: RA reaction will change when position of adjustable props are moved backward or forward. Any changes in prop position must be approved by site engineer.

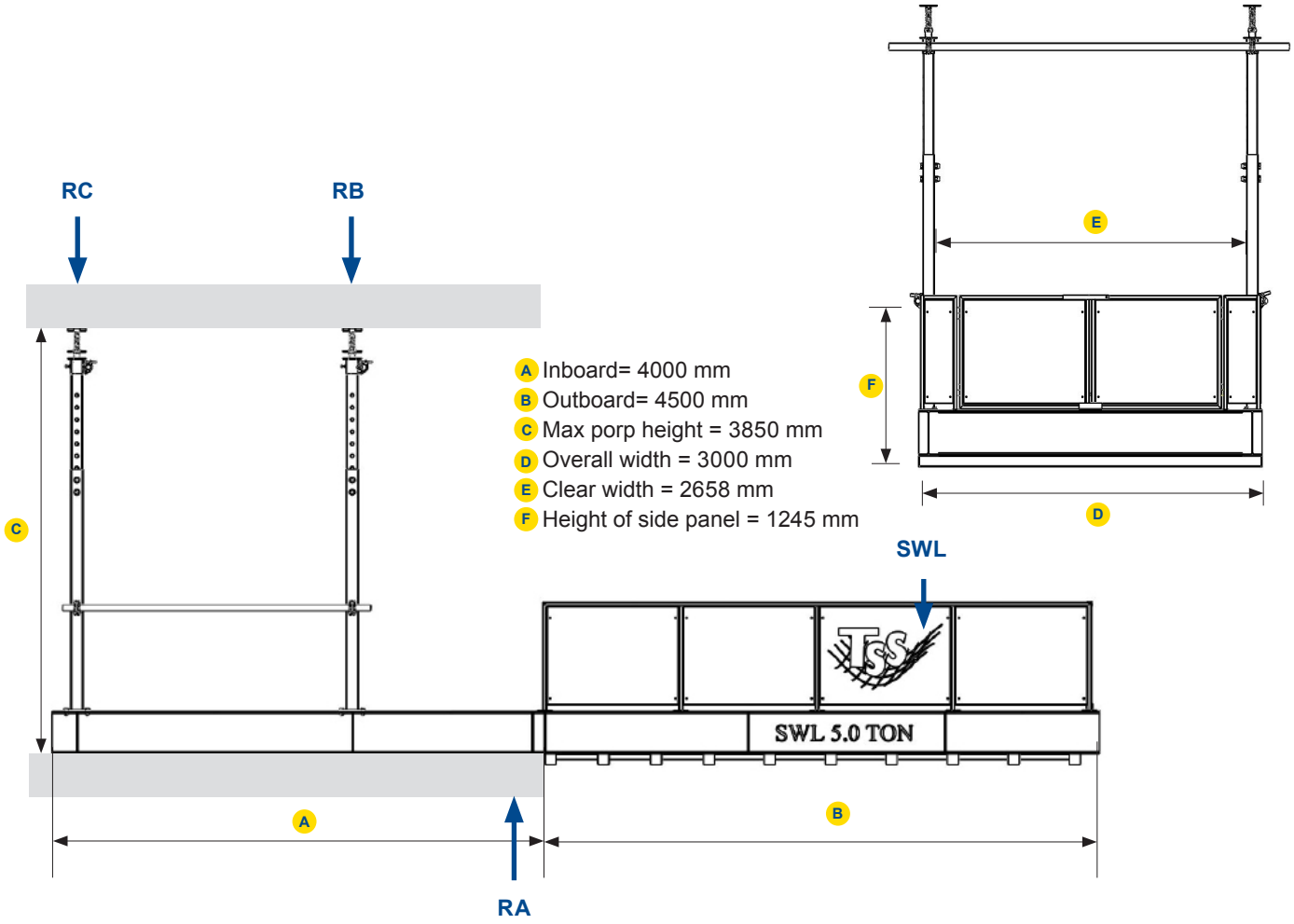
- Assumed load always centered on outboard of the platform
- All loads are static loads (no impact forces factored into reactions)
- All loads are working loads (no load factors applied)
- Horizontal forces not taken into account
- Reactions provided based on rigid supports (effects of deflections of supporting slabs not factored into design)

Fixed Loading Platform 50 kN

- **Safe Working Load = 50KN**
- **Proof Load to be applied = 75KN**
- **Deflection Criteria at 50KN = L/100 (45MM)**

Note :

• Prior to measuring for deflection, the platform MUST first be loaded to SWL. The SWL has to be held for two minutes and then removed. Re-tightening of threaded jacks might be necessary after removal of the SWL. The position of the platform after this test shall be the datum for deflection measurement.



Load / Reactions	
Outboard	4,500 mm
SWL	50 kN
RA*	92 kN
RB*	56 kN
RC*	4 kN

Reaction Loads are per prop.

For Larger outboard dimensions contact Technical Department.

Structurally designed for a Safe Working Load (SWL) of 50 kN placed centrally and uniformly distributed load on the platform.

Note: RA reaction will change when position of adjustable props are moved backward or forward. Any changes in prop position must be approved by site engineer.

- Assumed load always centered on outboard of the platform
- All loads are static loads (no impact forces factored into reactions)
- All loads are working loads (no load factors applied)
- Horizontal forces not taken into account
- Reactions provided based on rigid supports (effects of deflections of supporting slabs not factored into design)

Certification

- When installation is complete, one or all (depending on local regulation requirements) of the loading platform are to be inspected by a Third Party Certified Inspector before opening zoned off area.
- Any alterations or tampering with the loading platform must be reported to HSE Manager.
- Damaged loading platform are to be inspected by competent person from TSS.

Proof load to be considered when testing on site: SWL x 1.5

For loading platform procedure and deflection guidance, refer to loading platform criteria on page No. 10,11,12 & 13.

Customer or end user must ensure that the slab upon which the platform is installed on is capable of carrying the imposed loads.
considerations must also be given to back propping on the slab edge below and above the props to ensure even distribution of loads and avoid undisrable deflection and cracking.

Operating the Platforms

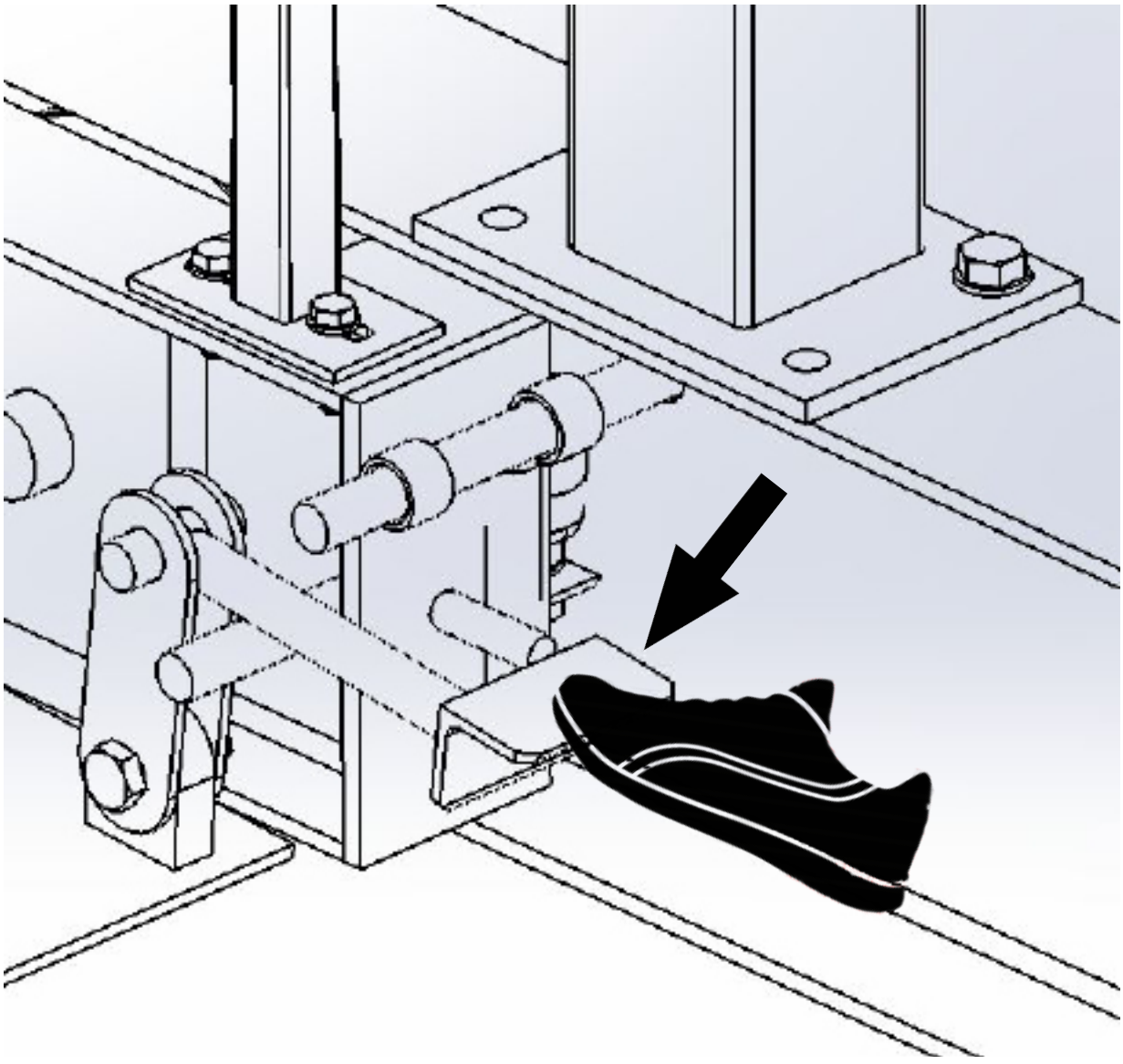
Ensure that platforms when in extended position are always in locked position to avoid any movements.
Never attempt to open or close the Platforms when loaded or with any material on the platforms.

When opening or closing the platform, use the lifting pedal to lift the ramp above ground.

Always ensure that the end gates are locked top and bottom. For long loads where the end gates are required to be opened, ensure that all workers are wearing Fall Protection Equipment and are connected to a safe anchor point when entering the platform.
Use warning signs when platforms are not in use.
Never overload the platform beyond the safe working load quoted on the platform and always ensure that the platforms are regularly inspected and certified following each repositioning.

Liftable ramp paddle

- Easily Liftable ramp along with locking positions for locking inner deck and outer deck at open and closed position.



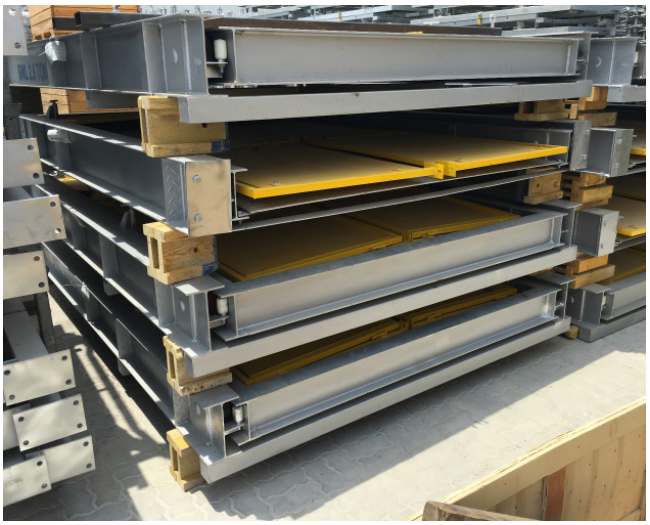
Transporting, stacking,and storing

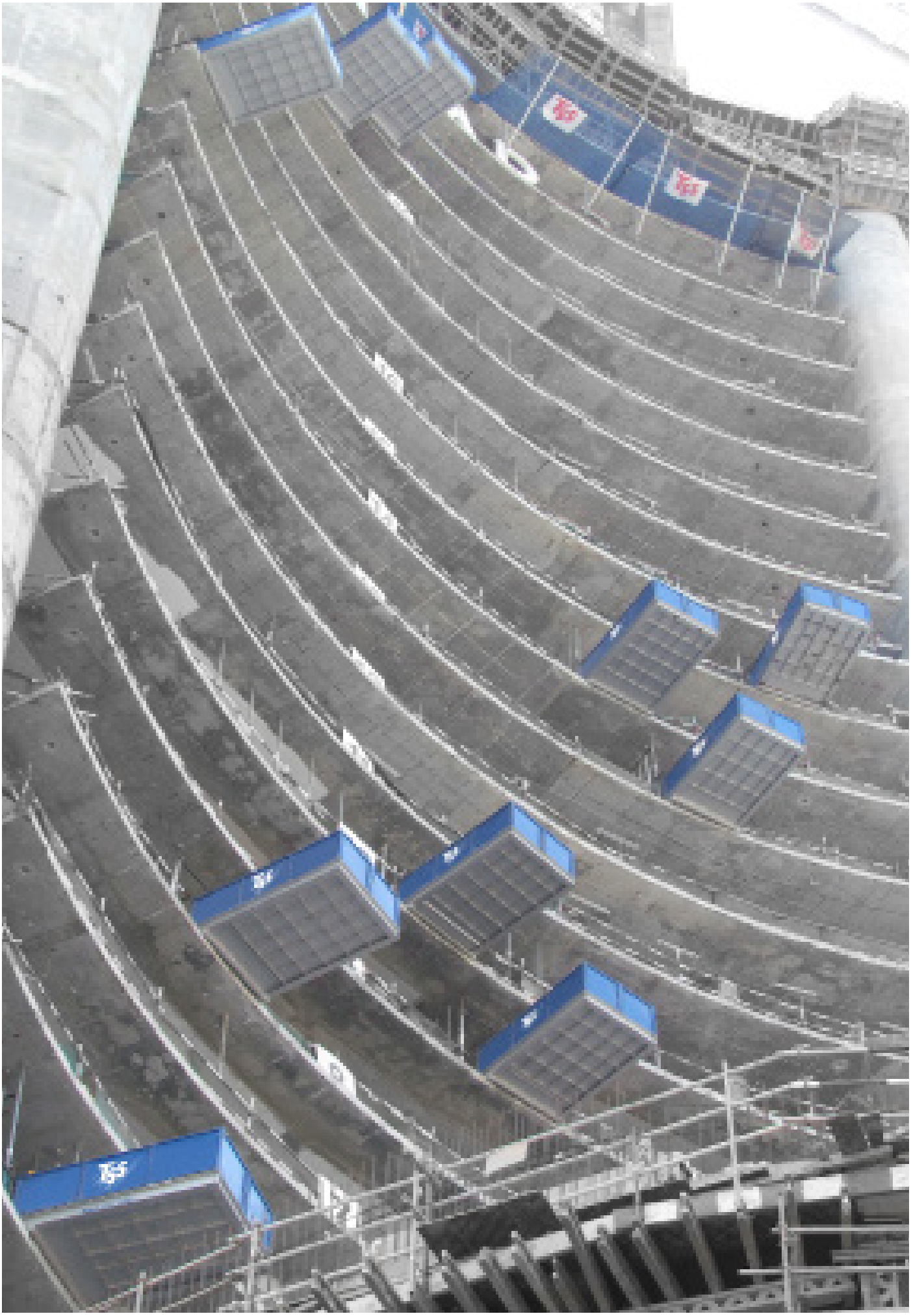
Thanks to their compact design, up to 4 loading platforms can be loaded onto the truck on top of one another – making for improved logistics and reduced shipping costs.

Platforms must be transported in closed and locked position.

Stacking and delivery condition

- Make sure the railing side panels are fully resting on the base plate of the main unit.
- Security pin must be locked to ensure that the retractable part cannot move.
- Use double H20 timber beams as stacking spacer between the platforms.
- Stack max. 4 platforms on top of one another!
- Never climb onto the stack of loading platforms.
- Before being transported by truck, the platforms must be strapped down securely.

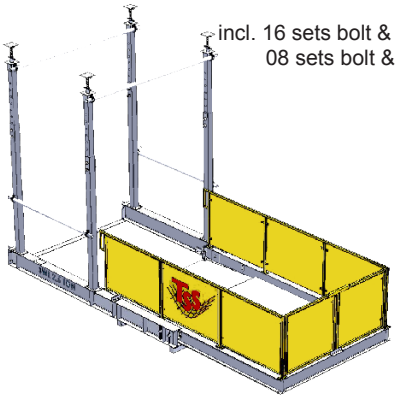




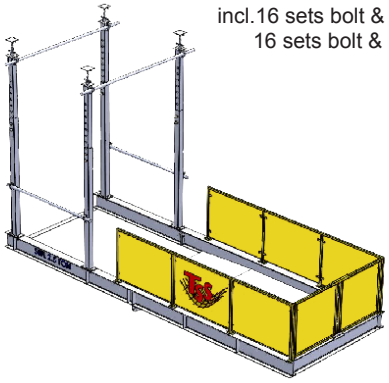
Summary

[kg]

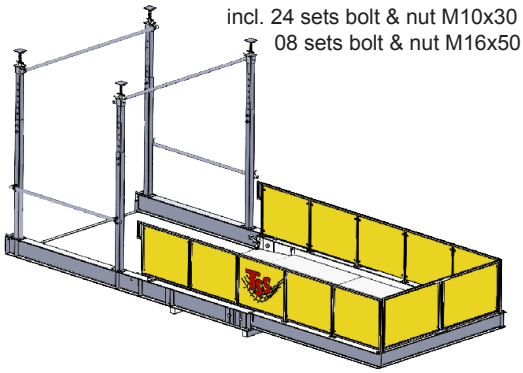
Article No : TSLPLATR25
Telescopic Loading platform 2.5 Ton — **1,500**



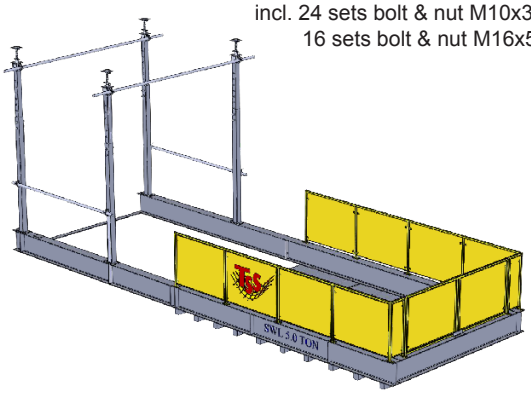
Article No : TSLPLATF25
Fixed Loading platform 2.5 Ton — **1,210**



Article No : TSLPLATR50
Telescopic Loading platform 5.0 Ton — **2,720**



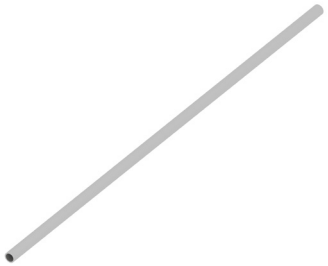
Article No : TSLPLATF50
Fixed Loading platform 5.0 Ton — **2,300**



[kg]

Scaffold tube 48.3mm 2.0m	**682016000**	**7.2**
Scaffold tube 48.3mm 2.5m	**682017000**	**9.0**
Scaffold tube 48.3mm 3.5m	**682019000**	**12.6**

Galvanized



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User Manual

TSS Loading Platform

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Working At Height Specialists
Safe Working Solutions