

Frequently Asked Questions

Category	FAQ
Application & Legislation	<p>Are there rules and regulations governing support structures used in event spaces (e.g. for backdrops and led walls) that are constructed using aluminium scaffolding materials?</p> <p>If the aluminium scaffolding is to be used as a scaffold as defined under the Workplace Safety and Health (Scaffolds) Regulations, ie to serve as a working platform or as a means of access for persons or materials, then the WSH (Scaffolds) Regulations shall apply. Details of the regulations can be found here.</p> <p>Otherwise, Aluminium scaffolding used as supporting structures for backdrops or LED walls do not fall under the purview of the WSH (Scaffolds) Regulations.</p> <p>In addition to any applicable Workplace Safety and Health (Scaffolds) Regulations or BCA regulations, the Workplace Safety and Health (Work-at-height) Regulations would also be applicable for all work-at-height activities in a workplace.</p>
	<p>Is Professional Engineer endorsement required for the erection of scaffolding?</p> <p>The following types of scaffolds would require a design by a Professional Engineer (PE):</p> <ul style="list-style-type: none"> a) Scaffolds where the work platform is used to provide footing for more than 2 persons in each bay, subject to a maximum of 2 persons in the case of timber scaffold and 4 person in the case of metal scaffold; b) Scaffolds where the work platform is used to support tools or materials exceeding 25 kg in each bay, subject to a maximum loading of 75kgf per square metre in the case of timber scaffolds and 220 kgf per square metre in any other case; c) Metal scaffolds supporting more than 4 persons in any bay, subject to a maximum of 8 persons; d) Metal scaffolds exceeding 15 metres in height in a shipyard and 30 metres in height in workplaces other than a shipyard; e) Scaffolds erected on cantilever or jib supports; f) Suspended scaffolds manufactured outside Singapore, which, instead

of a PE, can also be certified by a third-party inspection agency approved in writing by the Commissioner;

g) Outriggers or other overhead supports for a suspended scaffold where the work platform is supported by wire ropes;

h) Suspended scaffold and its attachments which has been re-positioned or shifted from one location to another within the same workplace;

i) Ties that tied timber scaffolds to a building or structure other than by passing through an opening or hole in the wall in the building or structure, and secured at a right angle to poles that are fixed firmly inside the building or structure;

j) Hanging scaffolds from which a person may fall more than 2 metres; and

k) Trestle scaffolds erected with more than 3 tiers or have a work platform more than 4.5 metres above the ground or floor or other surfaces upon which the scaffolds are erected.

Are Approved Scaffolding Contractors (ASC) from offshore and marine sectors and their erectors and supervisors allowed to do scaffolding works on land and buildings?

If so, are they required to apply any special / additional license before they can perform scaffolding operations on land and buildings?

Subject to prevailing workpass requirements and restrictions, Approved Scaffold Contractors (ASC) do not require additional technical licences to carry out metal scaffold operations across sectors.

The ASC/Employer however have to assess their workers for cross industry competency gaps if any and to provide adequate on-job training and supervision, in addition to any sector specific safety and familiarization trainings, to ensure they are familiar with the hazards associated with such work and the precautions to be observed.

Is it mandatory for employees to be trained as scaffold erectors and scaffold supervisors before they are allowed to set up “excluded” scaffolds such as tower scaffolds (including proprietary aluminium tower scaffolds)?

All scaffolds including “excluded scaffolds” must be constructed, erected, installed, re-positioned, altered, maintained, repaired or dismantled at a workplace only by trained scaffold erectors and under the immediate supervision of trained scaffold supervisor/s.

Prevailing scaffold erector and supervisor courses that are acceptable to the commissioner are the “WSQ : Perform Metal Scaffold Erection” and “WSQ : Supervise Metal Scaffold Erection” Courses respectively. If you are using proprietary scaffolds, you should consult the manufacturer if the abovesaid training suffice and if otherwise, attend any additional training as recommended by the manufacturer.

Can the roles of a Scaffold Erector and Scaffold Supervisor be performed by the same person?

The scaffold supervisor can be part of the scaffold erection team during scaffold erection but he must still provide immediate supervision to the rest of the erectors during the work.

Is there a height limit for tower scaffolds? Can I position my standing platform at 5m height?

Height restrictions are imposed on tower scaffolds according to their height-to-width ratio*. The WSH (Scaffolds) Regulations limit height of a tower scaffold on board a ship in a shipyard to not more than 4 times the lesser base dimension and not more than 8 times the lesser base dimensions** of the scaffold in other workplaces. In addition, all tower scaffolds, where the height of the scaffold excluding handrails and their supports at the uppermost lift, exceed 3 times the lesser of the base dimensions of the scaffold, effective ties to a building or rigid structure shall be provided so as to prevent toppling.

*If you are using aluminium tower scaffolds, SS 659:2020 – Code of Practice for scaffolds further limits the maximum height to 12m (indoors) and 8m (outdoors), amongst other requirements.

**If you are using steel tower scaffolds, SS 659:2020 further limits the min base dimension to 1.2m amongst other requirements.

You are also advised to consult manufacturer recommendations on any other restrictions or requirements pertaining to their proprietary system.

Are Approved Scaffold Contractor (ASC)s required to erect tower scaffold (including proprietary aluminium tower scaffolds) more than 4m in height? Would the same scaffold require inspection every 7 days?

Tower scaffolds (including proprietary aluminium tower scaffolds) are excluded scaffolds which do not require an approved scaffold contractor to erect, regardless of their height. Notwithstanding, there are other technical requirements that shall be adhered to, such as maximum height to width ratios and the need to provide effective tying, amongst others.

You can read about the requirements on the use of Tower Scaffolds under Reg (51) of the WSH (Scaffolds) Regulations. Further reading is also available from SS 659: 2020 – Code Of Practice for Scaffolds.

If you are using proprietary tower scaffolds, you should also adhere to any manufacturer’s recommendations if they are more onerous.

All scaffolds shall be constructed, erected, installed, re-positioned, altered, maintained, repaired or dismantled at a workplace only by trained scaffold erectors and under the immediate supervision of a trained scaffold supervisor.

No Scaffold (tower scaffold inclusive, regardless of height) shall be used unless it is inspected by a scaffold supervisor upon completion and thereafter at intervals of not more than 7 days or after being exposed to weather conditions likely to have affected the scaffold, whichever earlier. This requirement can be found in Reg 26 of the Scaffolds Regulations.

Do Telescopic towers fall under the purview of WSH (Scaffold) Regulations and if so, do the requirements for scaffold erectors, supervisors and periodic inspection apply?

Tower scaffolds (whether telescopic or not) fall under the purview of the WSH (Scaffold) Regulations. All scaffold must be constructed, erected, installed, re-positioned, altered, maintained, repaired or dismantled at a workplace only by trained scaffold erectors under the immediate supervision of a trained scaffold supervisor, and shall be inspected by a trained scaffold supervisor upon completion and thereafter at intervals of not more than 7 days or after being exposed to weather conditions likely to have affected the scaffold, whichever earlier.

Further requirements on the use of Tower Scaffolds are stipulated under Reg (51) of the WSH (Scaffolds) Regulations and SS 659 : 2020 – Code of Practice for Scaffolds.

Do note that SS 659 requires amongst others, that attention be paid towards maximum height to width ratios and the need to provide effective tying.

If you are using proprietary tower scaffolds, you should ensure erectors and supervisors alike are appropriately trained.

Would “OK tag” for safety usage remain valid if we move mobile scaffolding to another point within the vicinity?

Results of inspection can remain valid so long as the scaffold configuration remain unchanged and the conditions of use (eg. ground, terrain and weather conditions etc) is not worse-off as assessed by the scaffold supervisor.

Can a certified WAH Manager be the one to perform the role of a scaffold supervisor for a tower scaffold erection?

All scaffold regardless of their make must be erected by trained scaffold erectors under the immediate supervision of a trained scaffold supervisor.

Other than trestle scaffolds or scaffolds where a person is not liable to fall more than 2m, all scaffolds must be inspected by a trained scaffold supervisor upon completion and thereafter at intervals not exceeding 7 days and the results of the inspection entered into a register before the scaffolds can be put into any use. This requirement is specified in Reg 26 of the WSH (Scaffolds) Regulations 2011 and applies to tower scaffolds as well.

A person shall only undertake the role of a Scaffold supervisor if he / she has successfully completed a training course acceptable to the Commissioner and if the Responsible Person reasonably believes he / she is competent to perform the functions and duties of a scaffold supervisor.

For metal scaffolds including tower scaffolds*, the only acceptable course is – “**WSQ : Supervise Metal Scaffold Erection**” Course *. A WAH Manager who satisfies the afore-mentioned can perform the role of a scaffold supervisor.

*If the tower scaffold is of a proprietary system, the employer should obtain the manufacturer's assessment whether the courses are adequate for their proprietary system. If these courses are not adequate, then the employer shall discharge his duty under Section 12(3)(e) of the Workplace Safety And Health Act, by ensuring his erectors and supervisors attend a course/s recommended by the manufacturer, in addition to the courses currently recognised by the Commissioner.

If a PE design is provided for a tower scaffold, can the same design be used at different locations?

PE endorsement for tower scaffolds are not mandatory except for special applications (see above on Professional Engineer endorsement required for the erection of scaffolding).

The stability of a tower scaffold is dependent on external environment factors such as the nature of foundation, availability of tie-backs etc. As such factors could vary between locations, one should consult the PE if the same design can apply.

Are personal fall protection equipment required while working on a safe scaffold platform with adequate guard rails?

The law does not mandate the use of personal fall protection equipment in a properly constructed scaffold.

The decision on whether to use PPE measures must be made by the Responsible Person after the conduct of a risk assessment, considering various factors including the work activity involved, the risk of falling, whether the work environment could contribute to a person-at-work falling, and whether the height of fall is such that it would potentially be injurious to persons.

What is a tower scaffold?

Tower Scaffold refers to a scaffold standing on 4 vertical standards (legs) and nothing more than 4.

If your scaffold is not a tower scaffold, it may require an **approved scaffold contractor (ASC)** to erect. You may find a ASC in the list [here](#).

	<p>What is mobile tower scaffold?</p> <p>A tower scaffold supported on 4 castor wheels.</p> <p>What is the standard used for proprietary aluminium tower scaffold?</p> <p>Guidance is provided in SS 659, which requires amongst others, material for aluminium tower scaffolds to comply with BS EN 1004, BS 1139-6, BS EN 1298 or BS EN 12811.</p>
	<p>Where can I find requirements related to Tower Scaffold?</p> <p>The use of Tower Scaffolds are stipulated under:</p> <ul style="list-style-type: none"> • Reg (51) of the WSH (Scaffolds) Regulations (click here for a free copy of the said regs) • SS 659 : 2020 – Code of Practice for Scaffolds. (you may purchase a copy of the Singapore Standard from Enterprise Singapore)
<p>Training</p>	<p>Apart from the prevailing scaffold erector and supervisor courses acceptable to the Commissioner, would in-house training by experienced scaffold supervisors or equivalent overseas training be acceptable as well?</p> <p>For the safety and welfare of those working in Singapore, the Workplace Safety and Health (WSH) Act requires all workers carrying out any form of manual work in Singapore, to attend the relevant WSH courses conducted by training providers certified and recognised by prevailing authorities.</p> <p>Prevailing scaffold erector and supervisor courses that are acceptable to the Commissioner, namely the “WSQ : Perform Metal Scaffold Erection Course” or “WSQ : Erect Metal Scaffold in Marine Industry Course” and “WSQ : Supervise Metal Scaffold Erection Course” and “WSQ : Supervise Metal Scaffold in Marine industry Course-focus on developing key performance and underpinning knowledge necessary for scaffold construction, erection, installation, re-positioning, alteration, maintenance, repair and dismantling, <u>for common scaffolds used in Singapore</u>. An overseas training therefore may not fulfil the expectations for scaffolds common to Singapore.</p> <p>In addition, if you are using proprietary scaffolds that are not covered by local training curriculum, an assessment by the proprietary scaffold</p>

	<p>manufacturer should be obtained on whether the local courses are adequate for their proprietary system. If the local courses are not adequate, then the scaffold erectors and supervisors have to attend further training recommended by the manufacturer, <u>in addition to the courses currently recognised by the Commissioner.</u></p> <p>My Training certificate does not display my NRIC, Work permit number or S Pass number. What should I do?</p> <p>Certificates without identification numbers or with passport numbers are not accepted by MOM.</p> <p>If your certificate was issued with your passport number or without any identification number, you need to get your course provider to re-issue your certificate so that it clearly displays your NRIC number (for locals), or your FIN, WP, S Pass or EP numbers (for migrant workers).</p>
<p>Materials and Construction</p>	<p>Are tension cables and their attachments such as shackles common in cantilever scaffold bracket construction deemed lifting equipment requiring LG certification?</p> <p>Tensioned cables and their appurtenances used in cantilever scaffolds are dissimilar in function as those used as lifting gears associated with lifting machines and lifting appliances. Accordingly, the prescribed testing and examination requirements for lifting gears under the Workplace Safety and Health (General Provisions) Regulations do not apply.</p> <p>Notwithstanding, under the Workplace Safety and Health (Scaffolds) Regulations, the Responsible Person has to ensure that every scaffold member or component thereof is of sound material, good construction, of adequate strength, free from patent defects and suitable and safe for the purpose for which it is intended. Where compliance to the aforementioned necessitates a testing and maintenance regime, such a regime should be implemented accordingly.</p>

Are we allowed to add customised components (such as customised ladders) and/or materials from other makes (such as GI Pipe handrails) to existing scaffolds? And if so, can the customised components be used as type-approved material?

The Ministry of Manpower no longer issues type-approvals for metal scaffolds. The duty is now placed on the Responsible Person to ensure that the metal scaffold, both as a system and individually as components (where required by SS 280 Parts 1 and 2) are type-tested.

The Ministry does not encourage the mix-and-match of components unless compatibility is guaranteed by the scaffold manufacturer. If you intend to incorporate customised components into your scaffolds, please check with your scaffold manufacturer to confirm the compatibility of the components with your scaffold system, and to also specify the material specifications (if not already stipulated by SS 280 Parts 1 and 2 as appropriate) for the customised components, before contacting one of the SAC accredited testing bodies to test the components in accordance to the material specifications.

For materials used only as additional safety features for fall prevention (not fall arrest) such as guard-rails, if established to be compatible with the scaffold and will not replace either the original fall protection components or original load bearing scaffold components contributing to strength, stiffness and stability, you may do so after conducting the necessary risk assessment.

Please note Regulation 29 of the WSH (Scaffolds) Regulations states: It shall be the duty of the Responsible Person* to ensure that no metal scaffold shall be erected or installed in a workplace unless —
(a) it has been type-tested by a recognised testing body in accordance with a standard or specification acceptable to the Commissioner; and
(b) it complies with such conditions as the Commissioner may think fit to impose.

* “Responsible Person”, in relation to any workplace in which a person carries out or is to carry out any work involving the construction, erection, installation, re-positioning, alteration, maintenance, repair or dismantling of a scaffold, means — his employer; or the principal under whose direction he carries out or is to carry out any such work;

Where can I find a list of typed approved scaffolds that are MOM approved for use in Singapore?

The Ministry no longer grants type approval for metal scaffolds.

If you are the scaffold user, please check with your Approved Scaffold Contractor (ASC) for a copy of the scaffold material type-testing reports.

If you own the metal scaffolds, or if you are the ASC, you may check with your manufacturer/ supplier to obtain a copy of the type-testing reports. Alternatively, if no type-testing reports can be obtained, you may contact one of the SAC accredited testing bodies for type-testing arrangement.

In metal scaffold, are standards allowed to be lapped vertically to extend the height?

No.

The WSH (Scaffolds) Regulations stipulate that standard-to-standard connections for metal scaffolds shall be made using spigots, jointpins or sleeves. Couplers other than those offering co-axial connections between standards may not provide the required compression resistance and may induce additional eccentricity to the members.

Full details under Reg 33 of the WSH (Scaffolds) Regulations is as follows:

Spigots, jointpins or sleeves

33.—(1) It shall be the duty of the Responsible Person to ensure that the requirements of paragraphs (2) to (6) are complied with.

(2) Spigots, jointpins or sleeves shall be used to connect one standard of a metal scaffold in a workplace to another standard.

(3) Where spigots, jointpins or sleeves are used to locate and connect

one standard to another, such spigots, jointpins or sleeves shall —

(a) permit full bearing over the whole bearing area at the ends of the standards; and

(b) have such external or internal dimensions that the maximum difference of mating diameters in any part between the spigot, jointpin or sleeve and the other standard does not exceed 1.6 millimetres.

(4) Spigots and jointpins shall engage in the ends of the standards by at least 70 millimetres.

(5) Sleeves shall cover the end of the standard by at least 70

millimetres.

(6) The standards shall be securely held if they are connected by the spigots, jointpins or sleeves.

What are the requirements for castor wheels used in mobile scaffolds?

While the WSH (Scaffolds) Regulations do not prescribe the type and make of castors used in scaffold or the standards that they should adhere to, it is the duty of the Responsible Person to ensure only castors fit for the purpose and intent are used.

In general, castors used for tower scaffolds shall be of the appropriate safe working loads, of the swivel type, be fitted with positive locking devices and brakes and be compatible & capable to be affixed to the uprights (vertical legs) of the tower.

Further reading on the safe use of tower scaffolds can be found in SS 659: 2020 – Code of Practice for Scaffolds.

Are scaffold components allowed to be painted (oil/water based)?

Scaffold materials can either be hot-dip galvanised or painted during manufacture. Painted components will be required to pass the adherence and corrosive resistant tests required under the relevant Singapore Standards for scaffolds.

During the repair and maintenance of used components, ASCs should check the corrosion level and match it with the manufacturer's corrosion allowance levels before discarding / returning the components to service.

Any repair and maintenance to the components should be carried out in accordance with manufacturer's recommendations.

It is not advisable to paint over scaffold components as it may mask corrosion.

Cantilever brackets/beams, their hold-down props/ties and ancillary accessories are not subjected to testing under SS 280 and SS 311. What do we need to do to comply?

Scaffolds and workplatforms erected on cantilever or jib supports are legislated under Reg 52 and 53 of the WSH (Scaffolds) Regulations.

“Cantilever or jib supports” include any structure such as brackets, or beams that project beyond a fulcrum or point of attachment, that are not supported directly from the ground or floor below. Such supports are to be constructed in accordance with the design documentations (calculations, drawings and construction procedures) of a professional engineer (“PE”) and including the scaffold they support, be examined by a PE for safety and a certificate issued before they are put into use.

The responsible person shall ensure that all materials and components including the cantilever structure, its anchor bolts, hold-down props and ties, torsion cables and accessories etc shall be of sound material, good construction and adequate strength and proper procedures are implemented to ensure Quality Assurance / Quality Control (“QA/QC”) during procurement and in support of repeated use.

The PE who designs such supports shall ensure his design can be carried out safely and to provide all design documentations necessary to enable proper construction and safe use, which should include but not limited to, design parameters that are critical to strength, stiffness and stability. More requirements are provided in SS 659 – COP for Scaffolds.

Can scaffold erection deviate from a professional engineer’s design during construction and then reconcile the differences via the PE certificate of supervision?

All scaffolds including cantilever or jib supports used to carry the scaffolds that are designed by a PE shall be constructed in accordance with the design and drawings of the PE.

Certificates of supervision, commonly known as COS, provides a mandatory second assurance to safety and should not be used as the only treatment and primary approach toward construction deviations. Where such deviations have a potential to materially affect strength, stiffness and stability, a re-design should be carried out and the revised documentation communicated, made available for construction and inspection, before proceeding with the material changes.

Can swivel and fixed couplers be interchanged?

Couplers used for bracing and tying of members shall be fit-for-purpose. Right angled couplers have pairs of couplers that are rigidly connected at 90° to the axis of each other whereas swivel couplers have pairs of couplers that are able to rotate 360° with respect to each other. Swivel couplers therefore do not provide rotational rigidity to the connection and if wrongly used in-lieu of fixed couplers at right angled joints, could result in structural instability and could also undermine strength.

Type of couplers to be used shall be clearly reflected in scaffold construction drawings.

We often see banners with “220 kgf/m2 safe working load” displayed on completed scaffolds. Does it mean all platforms within the same bay can concurrently be subjected to this force?

220kgf/m2 is the maximum loading for persons and materials allowed on any work platform in any bay of a metal scaffold, provided it is so designed. Subject to a maximum number of 4 persons per work platform and 8 persons per bay for a metal scaffold, the maximum permissible weight of tools and materials and the maximum number of persons on each bay are to be clearly displayed as well for clarity.