The role of Safety Practitioners in preventing Working at Height accident

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THE HONG KONG FEDERATION OF OCCUPATIONAL SAFETY & HEALTH ASSOCIATION

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Accident Statistics 2021 Vs 2025

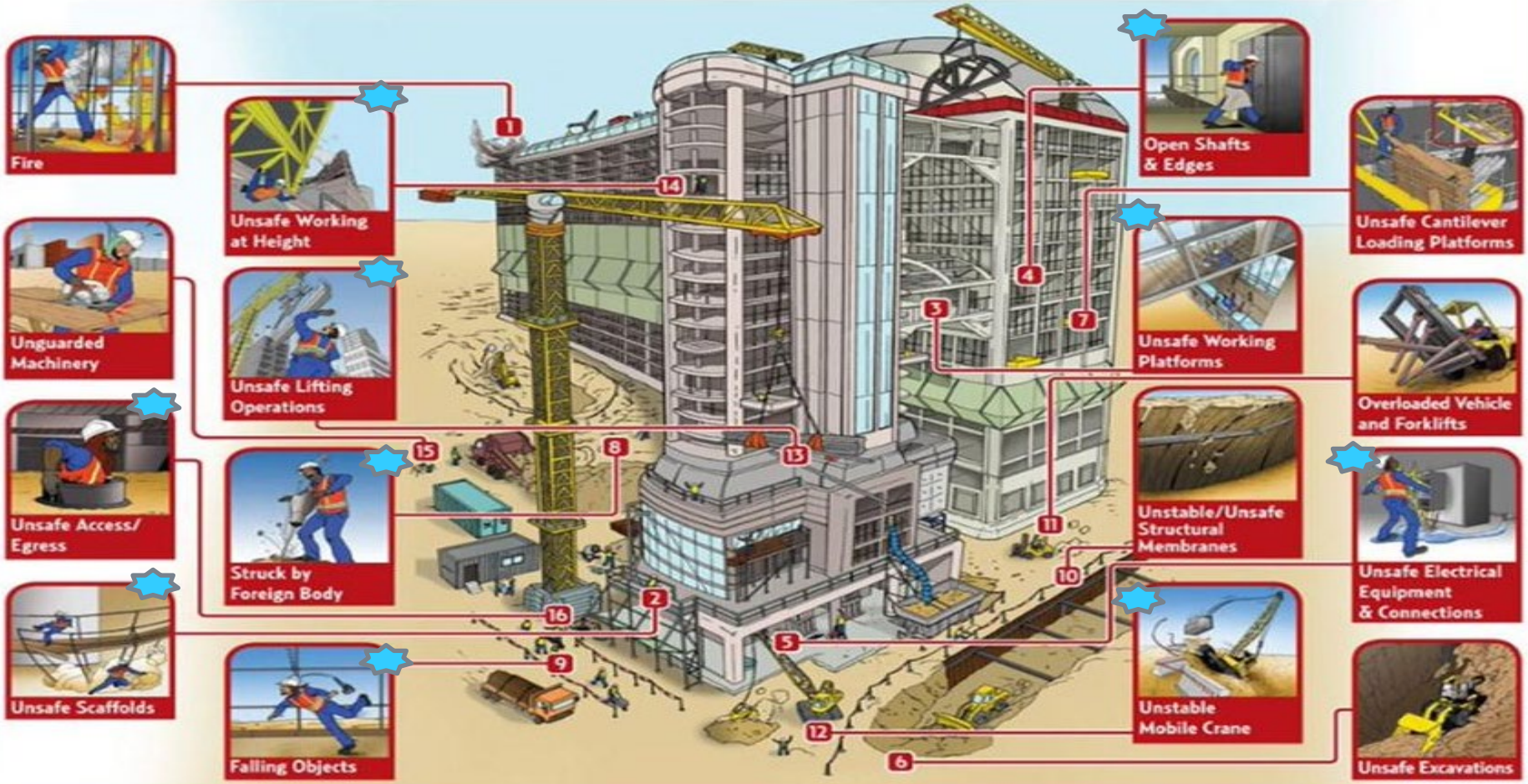
Industrial accidents in the construction industry	2021	2022	2023	2024	2025
Number of fatal cases	23	17	20	14	21[1]
Number of injury cases	3 086	3 029	3 077	3 023	2 404
Total number of cases	**3 109**	**3 046**	**3 097**	**3 037**	**2 425**
Accident rate per 1 000 workers*	29.5	29.1	27.6	24.8	21.3

Accident Statistics 2024 Vs 2025

Metric / Accident Type	2024	2025	Trend
Total Construction Accidents	3,037	2,425	📉 Down 20.2%
Construction Accident Rate (per 1,000 workers)	24.8	21.3	📉 Down 14.2%
Total Fatal Industrial Accidents	22	21	📉 Down 4.5%
Fatalities: Fall of Person from Height	5	6	📈 Up 20%

Breakdown of the 21 fatal industrial accidents: "fall of person from height" (6 cases), "asphyxiation" (4 cases), "struck by falling object" (3 cases), "trapped in or between objects" (2 cases), "striking against or struck by moving object" (2 cases), "trapped by collapsing or overturning object" (1 case), "contact with moving machinery or object being machined" (1 case), "drowning" (1 case) and "others" (1 case).

Top 16 hazards in construction sites



Who is Safety Practitioner

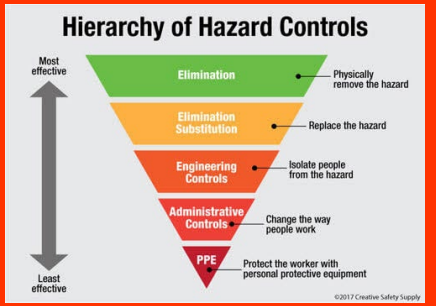
- Safety Auditor (SA),
- Safety Officers (SO),
- Safety Supervisors (SS)
- External Consultants

Roles of Safety Practitioners in Preventing Working at Height Accident

- systematically identify fall hazards,
- enforce regulatory compliance, and
- foster a strict site safety culture before any worker leaves the ground.
- act as the bridge between safety regulations and daily site execution
- ensure that collective and personal fall protection systems are flawlessly maintained.

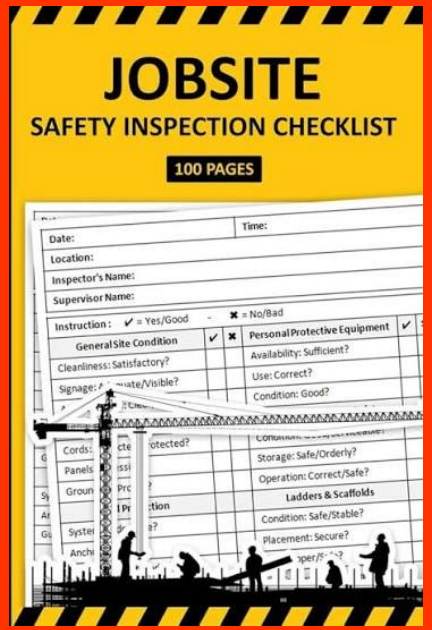
Risk Assessment and Hazard Identification

- Conducting Job Safety Analyses (JSA): Evaluating tasks to identify specific risks like fragile roofs, unprotected edges, and adverse weather conditions.
- Applying the Hierarchy of Control: Driving decisions to eliminate high-risk work where possible, or prioritizing collective protection (guardrails) over personal protection (harnesses).
- Mapping Fall Zones: Highlighting overhead obstacles, electrical lines, and lower-level drop hazards before setup.



Inspection and Technical Compliance

- Scaffolding Assurance: Verifying that scaffolding is professionally erected, structural load capacities are respected, and clear "Green Tag" safety systems are active.
- Access Equipment Verification: Auditing ladders, mobile elevated work platforms (MEWPs), and step platforms for structural damage.
- PPE Accountability: Inspecting shock-absorbing lanyards, lifelines, anchor anchorages, and full-body harnesses for wear, ensuring 100% tie-off compliance.



Operational Oversight and Enforcement

- Permit to Work (PTW) Control: Issuing & closing high-risk permits to ensure that no elevated tasks begin without a pre-checked checklist.
- Routine Site Patrols: Conducting daily walkabouts to catch and correct immediate unsafe behaviours, such as overreaching on ladders or improper anchorage usage.
- Housekeeping Audits: Monitoring the work platform to prevent trips from loose tools, debris, or oil slicks that lead to secondary falls.

Training, Communication, and Emergency Readiness

- Toolbox Talks: Delivering sharp, task-specific daily briefings on edge protection, tool tethering, and stable ladder angles.
- Competency Verifications: Ensuring only certified personnel operate heavy access machinery like boom lifts or scissor lifts.
- Rescue Plan Execution: Developing, drilling, and equipping teams with suspension trauma relief straps and dynamic retrieval plans so a fallen worker can be rescued safely within minutes.

Local News 港聞 二〇二〇年五月九日 星期六 星島日報 SINGTAO DAILY A8

妻懷孕半年
稚女僅歲半

避疫留港做黑工 搭棚師傅墮樓亡

記者：林思明 黃文威

荃灣一幢正進行外牆維修工廈昨發生奪命工業意外，一名年輕棚工繫上安全帶在二十六樓工作期間，突然失足飛墮而下，中途壓毀多個工作台竹枝，倒臥四樓棚架上重傷，消防員花近句鐘將他救下送院，惜告不治。警方調查揭發死者疑為非法勞工，正追查其僱主下落。死者遺下懷孕半年的妻子與歲半女兒，母女徬徨無助。

■死者吳永杰

■墮樓工人倒卧棚架上，消防員設法將他救下。 林思明攝

妻女無依遺憾未見最後一面

A5

Local News 港聞 二〇二〇年六月十五日 星期一 星島日報 SINGTAO DAILY A4

鋼架瓦礫堆疊
消防拯救困難

焚化爐塌工作台 12人飛墮七層樓

記者：梁國峰 趙俊亨

環保署青衣化學廢物處理中心昨發生嚴重工業意外，十二名工人在焚化爐內一個七層樓高臨時金屬工作台施工期間，工作台突如骨牌般倒塌，十二人隨支架跌入磚塊及鐵架中，當中兩人無恙，六人輕傷自行爬出，但有四人重傷被困，近百消防員到場花逾句鐘將被困工人救出，有兩人一度垂危，幸經搶救已無性命危險。當局正調查出事原因，勞工處即時向有關承建商發出「暫時停工通知書」。

■消防員調查青衣化學廢物處理中心意外。

搭建疑出錯致承托力不足

專家的話

須工程師簽名認可

兩工人一度危殆

■消防員在發生工作台倒塌的焚化爐展開救援。梁國峰攝

■一度危殆的工人送院搶救後脫離危險。

■另一名重傷工人情況轉為嚴重。 趙俊亨攝

出動生命探測器搜救

「第一截擊車」出動

裝修工六級階梯跌斃

■死者疑從六級階梯倒豎葱跌下斷頸。 林思明攝

名導演杜琪峯妻子擁有的西貢早禾坑村洋房，昨晨裝修期間發生罕見奪命意外。一名工人疑在六級樓梯跣腳後仰，倒豎葱跌下，撞及後腦，頸骨折斷，送院後不治，勞工處已展開調查。遺屬表示死者將盡捐器官，遺愛人間。

死者吳正康(六十六歲)，任職裝修工人數十年，主要從事泥水工作。與妻子住沙田穗禾苑，女兒已出嫁及有子女，吳榮升外公。據悉，吳為標準球迷，早前獲親友贈送即將舉行的中港世盃足球外圍賽門票，惜已無緣觀賞。

疑跣腳後仰撞斷頸

現場是早禾坑村一幢三層高洋房，今年九月開始翻新工程，預訂本月底竣工。資料顯示上址屬公司登記，著名導演杜琪峯的妻子黃寶玲持有該公司。

昨晨九時四十五分，各工人如常開工，其間一樓突傳出砰一聲巨響，工友查看發現吳倒豎葱般擱於樓梯級，後腦撞地面濺血昏迷，五十一歲姓劉工友報案。警方及救護員到場將傷者送院，惜搶救後不治，疑死者後腦受創外，頸骨折斷，初步懷疑他在六級樓梯跣腳後仰跌下，由於吳生前患有高血壓，未知是否有關。死者妻子、女兒及幾名親友聞訊趕到醫院善後，各人顯得非常傷心。家人表示捐出死者眼角膜，遺愛人間。

骨科醫生黃振豐表示，頸椎是重要部位，特別是第一節及第二節，撞傷會影響肺部功能。

記者 林思明 歐陽偉光

冷氣工四米高墮地吐血亡

一名冷氣技工，昨晨在大埔一家電子材料廠維修天花冷氣，突從四米高處墮下，頭部重傷吐血昏迷，送院不治，勞工處展開調查，了解是否與安全設施不足有關。

死者姓李(五十八歲)，任職冷氣工程技工多年，屬外判工人。昨晨他在大埔大宏街六至八號一家電子材料廠，維修假天花上的冷氣設備，至上午十一時許，突從四米高處失足墮下，撞傷頭部吐血昏迷，職員發現報案，救護員到場，將傷者送沙田威爾斯親王醫院搶救，懷疑嚴重腦出血，回天乏術。

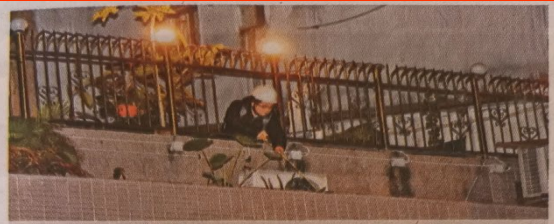
勞工處已展調查，了解是否與安全設施不足有關，若證據充足的話，不排除向違規者提出檢控。

據知，不少冷氣技工維修天花冷氣設備時，為貪方便或省錢，長時間使用梯子，又或使用沒有圍欄的平台等，致意外頻生，即使少於兩米高度，亦曾有不少工人跌傷。

工業傷亡權益會總幹事陳錦康稱，僱主在員工進行離地工作，必須提供安全的工作平台，包括設有底護板和穩固的圍欄等。若工人有下墮機會，僱主有責任提供全身式安全帶、獨立救生繩，並扣於穩固點上。急症室專科醫生彭繼茂稱，若從高處墮下撞傷頭部致頭骨破裂，或嚴重腦震盪，都可引致口、鼻吐血，一旦昏迷便相當危險。

記者 鄭家如

狗臂架鬆脫 棚工跌斃



■拆棚架工墮樓喪生，勞工處人員到場調查。 尹敬堂攝

拆棚工人疑無繫安全帶開工跌死！一名棚架工人，昨午在深水埗元洲街一唐樓拆棚，騎着狗臂架傳遞竹枝，不料狗臂架鬆脫，連人帶架由六樓墮下一樓平台，工人重傷昏迷送院不治，警方懷疑死者沒有繫安全帶，勞工處正調查是否人或公司違反安全守則，已下令有關棚架公司暫時停工。

死者徐國琪(五十五歲)，與前妻育有一對子女，均已成年，據悉徐任職棚架工人十多年，離婚後再婚。

六樓墮平台 疑無繫安全帶

現場是元州街一四七號一幢六層高唐樓，早前頂層有住戶進行窗戶工程，完工後待拆棚架。昨午五時許，徐與三名工友分兩組工作，差不多已拆走所有竹枝，他騎住狗臂架協助把竹枝遞往七樓天台，交由同事接應。不料，狗臂架連一支竹突然鬆脫，徐與架一同墮下，跌落隔鄰富源閣大廈一樓平台傷重昏迷。

警方及救護員接報趕至，將傷者送往明愛醫院搶救，惜回天乏術，死者前妻接獲通知在附近住所趕來善後。勞工處人員到場調查，了解是否有人或公司違反安全守則。

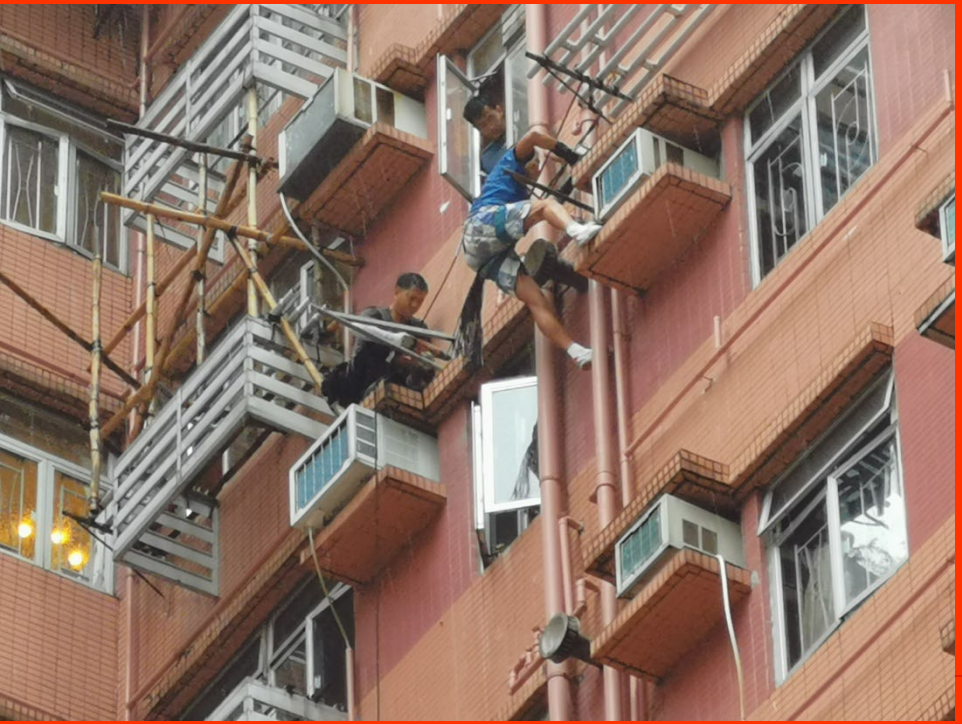
工業傷亡權益會總幹事陳錦康表示，進行棚架工作時，僱主有責任要提供安全防墮裝置給工人，如全身式安全帶及獨立救生繩等。 記者 尹敬堂

Steel Structure Erection

Formwork construction

Formwork construction

Renovation Work



Renovation Work

Strategy in Prevention of Fall

- Eliminate or reduce work at height e.g. Work on ground, use extensions etc.
- Use alternative access method e.g. fixed or mobile elevated working platforms with proper access
- Prevent from reaching the edge
  - By limiting the access e.g. lock, permit, authorization
  - Erect effective barriers e.g. fence, guardrail
- Provide Travel Restrain System to those who might be exposed
- Provide Fall Protection Device to those expose to fall hazards
- Reduce contact/ impact energy by providing energy absorption material at the surface e.g. rubber mat, airbag

Common Flaws of Fall Protection Device

- Faulty design or construction
- Use wrong equipment
- Wrongly use equipment
- Lack of maintenance of protection equipment

Faulty design or construction

Faulty design or construction

Use Wrong Equipment

Use Wrong Equipment

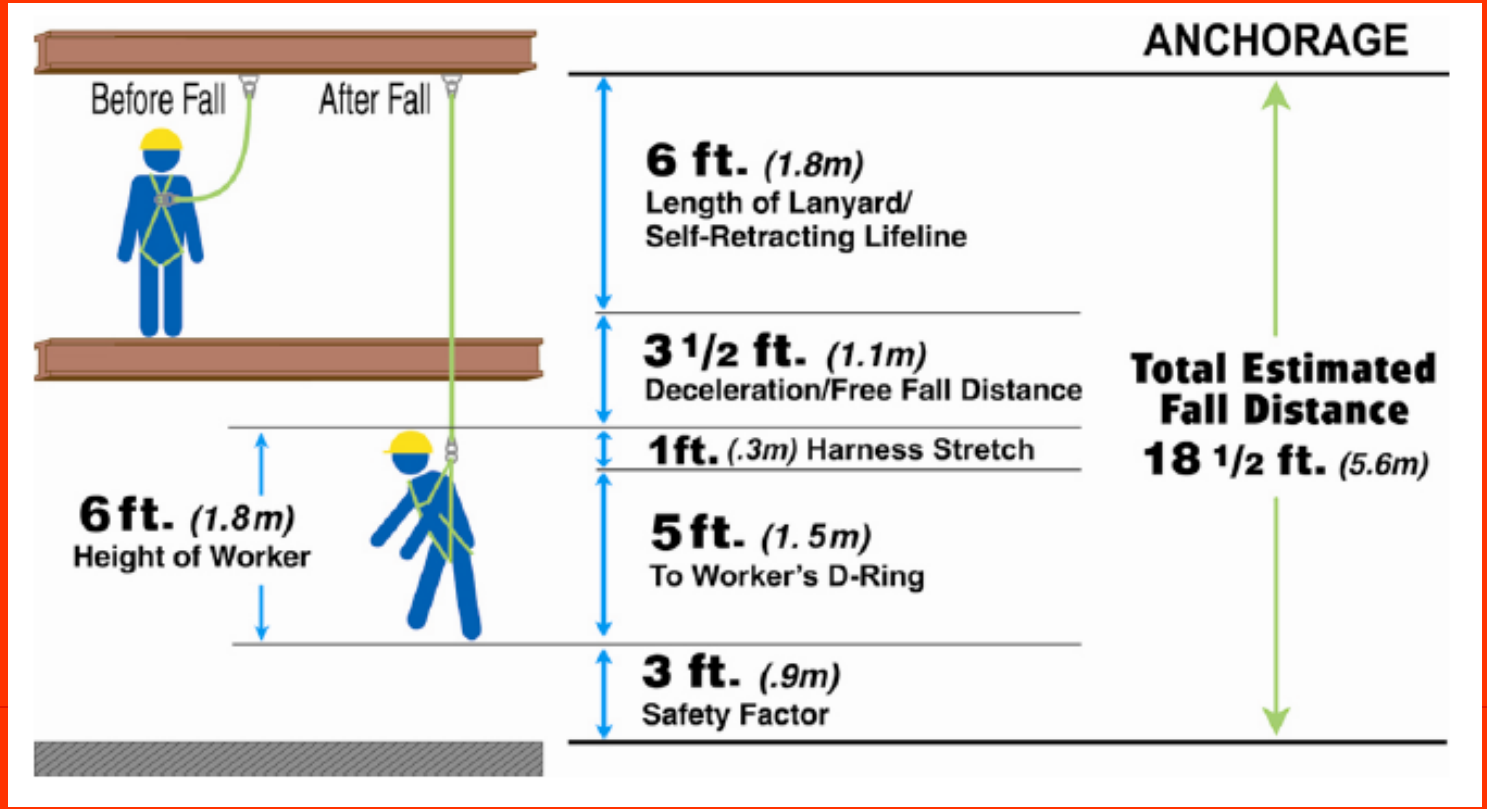
Use Wrong Equipment

Use Wrong Equipment

Wrongly use Equipment

Wrongly use PPE

Minimum Clearance when using Safety Harnes

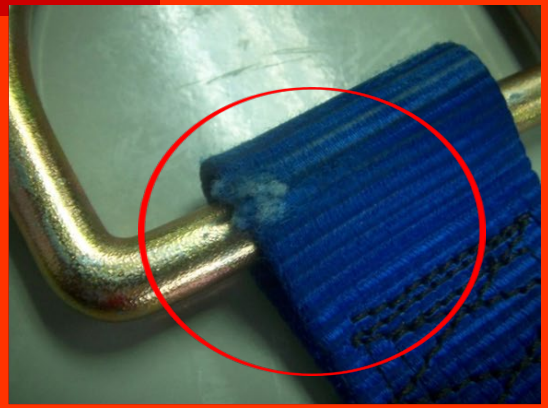


Improper use of Safety Harness

Wrongly Use Equipment

Lack of Maintenance to PPE

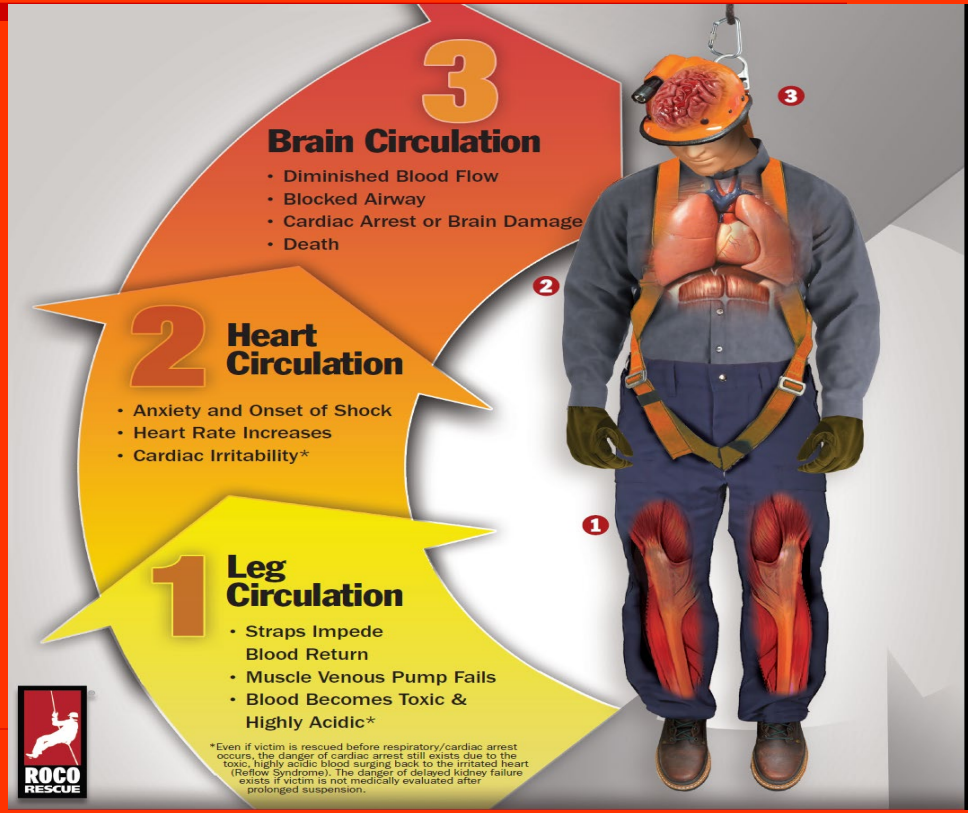
Lack of Maintenance to PPE



Lack of Maintenance

懸吊創傷 SUSPENSION TRAUMA

- 所謂 “懸吊創傷綜合症”，懸掛在安全帶上，除了通過織帶的壓力導致疼痛，循環引起的休克狀態，可伴隨血壓下降，頭暈，臉色蒼白，並可導致 死於循環休克。



Strap to Prevent Suspension Trauma

9501403 Suspension Trauma Safety Strap

Step 1 : Unzip packs to deploy

Step 2 : Pull out straps and hook

Step 3 : Put foot into web loop

Step 4 : Stand up and relieve pressure

Steps in Controlling the risk of Falling Hazards

- Plan計劃
- Avoid避免
- Select選擇
- Inspect檢查
- Supervise監督

Integrated into Work Routine

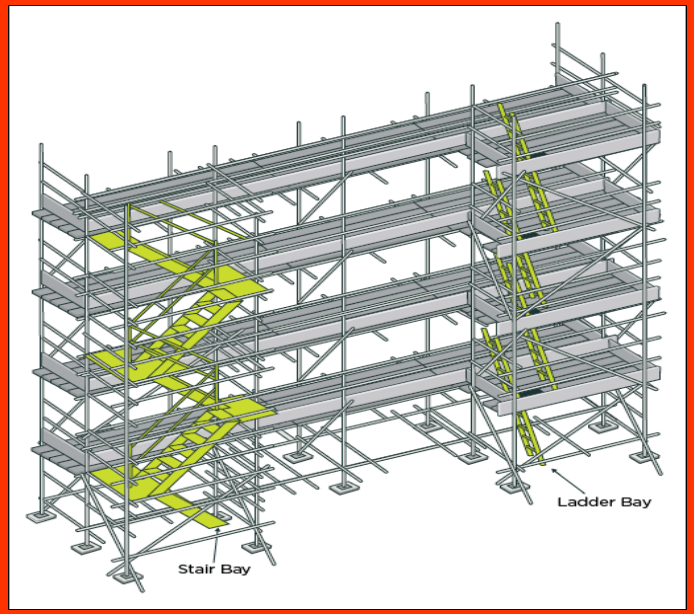
Work from Ground

Safe Means of Access

Tailor Made Mobile Cage

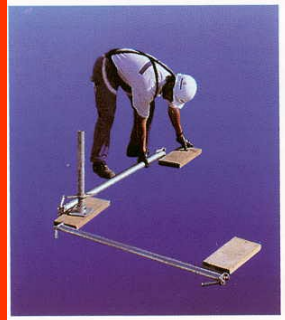
Temporary Work Platform
Ladder Platform

Temporary metal/ aluminum Work Platform



Erect Scaffold from a Safe Place

Erecting a type T4 tower or row (adjustable cell at top).



1

Lay adjustable base plates on load distribution sole plates at distances determined by the MultiCrab horizontal members.

The bases are fitted on the adjustable base plates.

Lay the first planned diagonals, bushes downwards.

2

Wedge the first horizontal members.

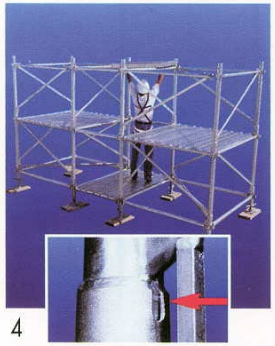
Fit and lock the first stage of triangles.

Level and plumb the structure.

3

Install the second level of triangles, again from the ground upwards. Reverse the direction of the triangles.

Erecting a type T4 tower or row (adjustable cell at top) – continued.



4

Install temporary working platforms. Fit the definitive platforms and the trapdoor with its ladder in the tower access cell every 2 m.

5

Erection must be carried out from inside the towers.

Fit the second plan braces, reversed by the preceding ones.

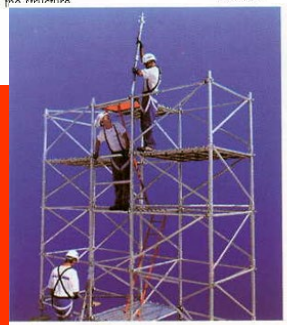
gles at level 3 in complete safety, triangles at the lower level.

orary platforms from level 1 to

6

Fit and lock the triangles at level 4, still in safety on the second platform.

The direction of the triangles should be reversed.



7

Fit new access platforms.

Fit the trapdoor with its ladder.

From level 3, still working safely and protected by

8

Connect up the adjustable cell with the MultiCrab horizontal members; diagonal braces adjusted to the cell size must be installed.

Position the forkheads on the screw jacks.

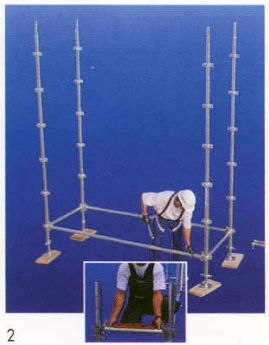
9

Finish off the service platform for installing the joists, girders, sole-pieces or shuttering panels.

This platform must remain in place to give access for checking the underside of the slab, for level-

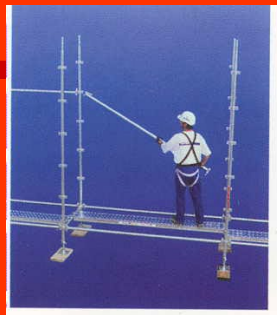
Erect Scaffold from a Safe Place

1
- Position the adjustable base plates at distances apart according to the longitudinal and transverse horizontal members.



2
- Fit the legs or standards on the adjustable base plates.
- Fit the horizontal members.
- Check levels.

3
- Fit the first platform to assist erection.
- Install the complete platform in the access cell.



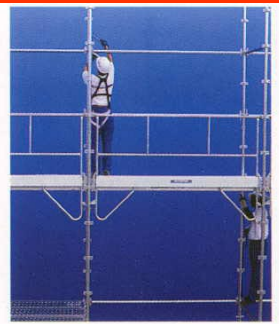
4
- Erect the first stage.
- Install the horizontal members.

5
- Fit the platform with the trapdoor in the access cell.
- Fold back the ladder.
- Check levels continuously.

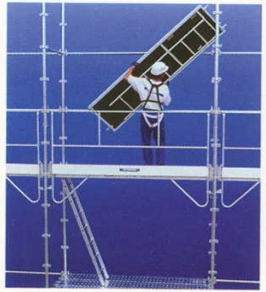
6
- Fit decking in all the cells of the first stage.

7
- From the lower level. fit the erection and service guardrail.

8
- The fitter can have access to the first stage which is already protected by the erection and service guardrail.



9
- Construct the second stage.
- Fit the horizontal members.



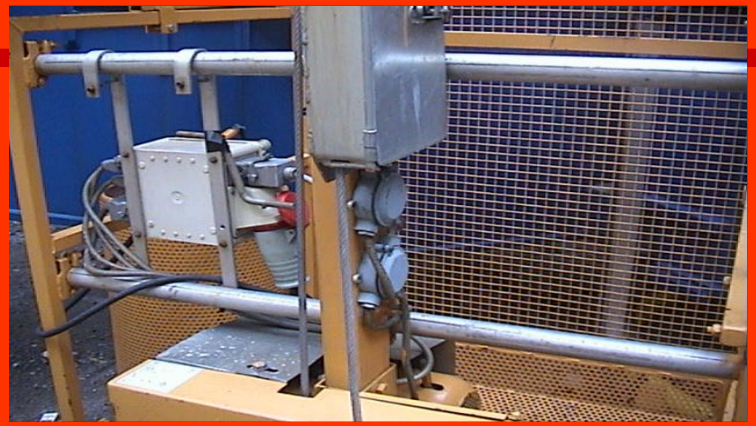
10
- Fit the second platform with trapdoor in the access cell. reversing the position of the ladder.

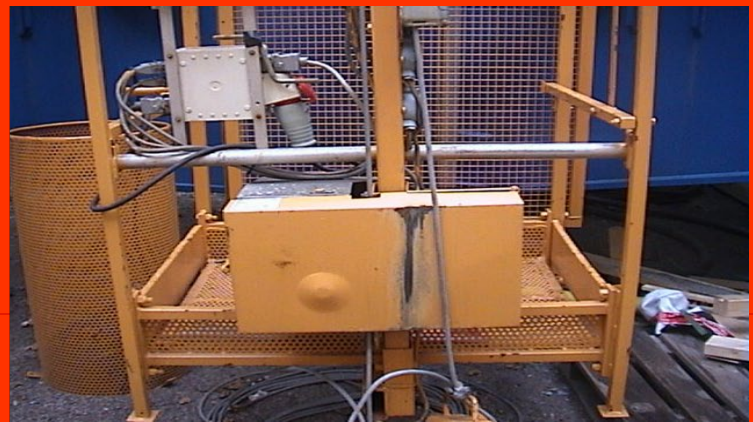
11
- Secure the erection and service guardrail to provide protection during work at the next higher level. safety thus being assured by the lower guardrail.

12
- Anchor the structure every 20 m^2.
- Continue erection as in the previous stages.
- Fit all necessary accessories: brackets. debris shields. beams. etc.. using individual protective equipment if necessary.

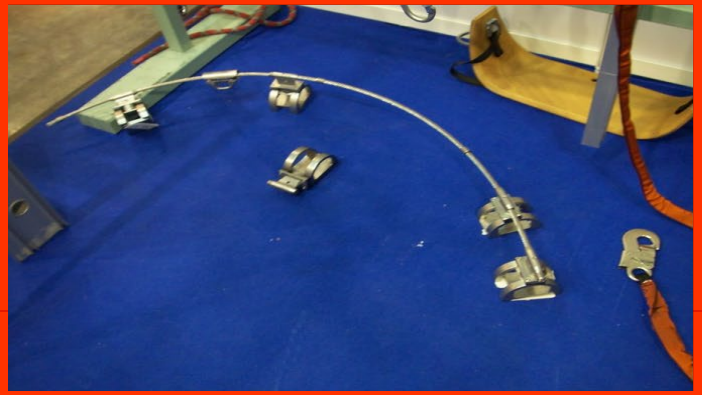
Mobile Elevated Work Platform

Tower Crane Operator Lift

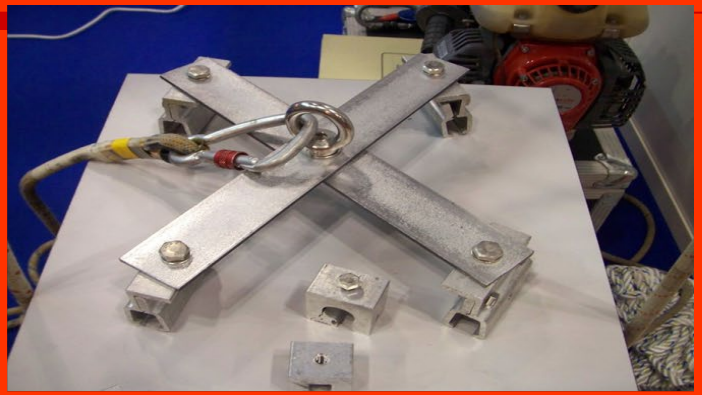




Permeant Horizontal Lifeline

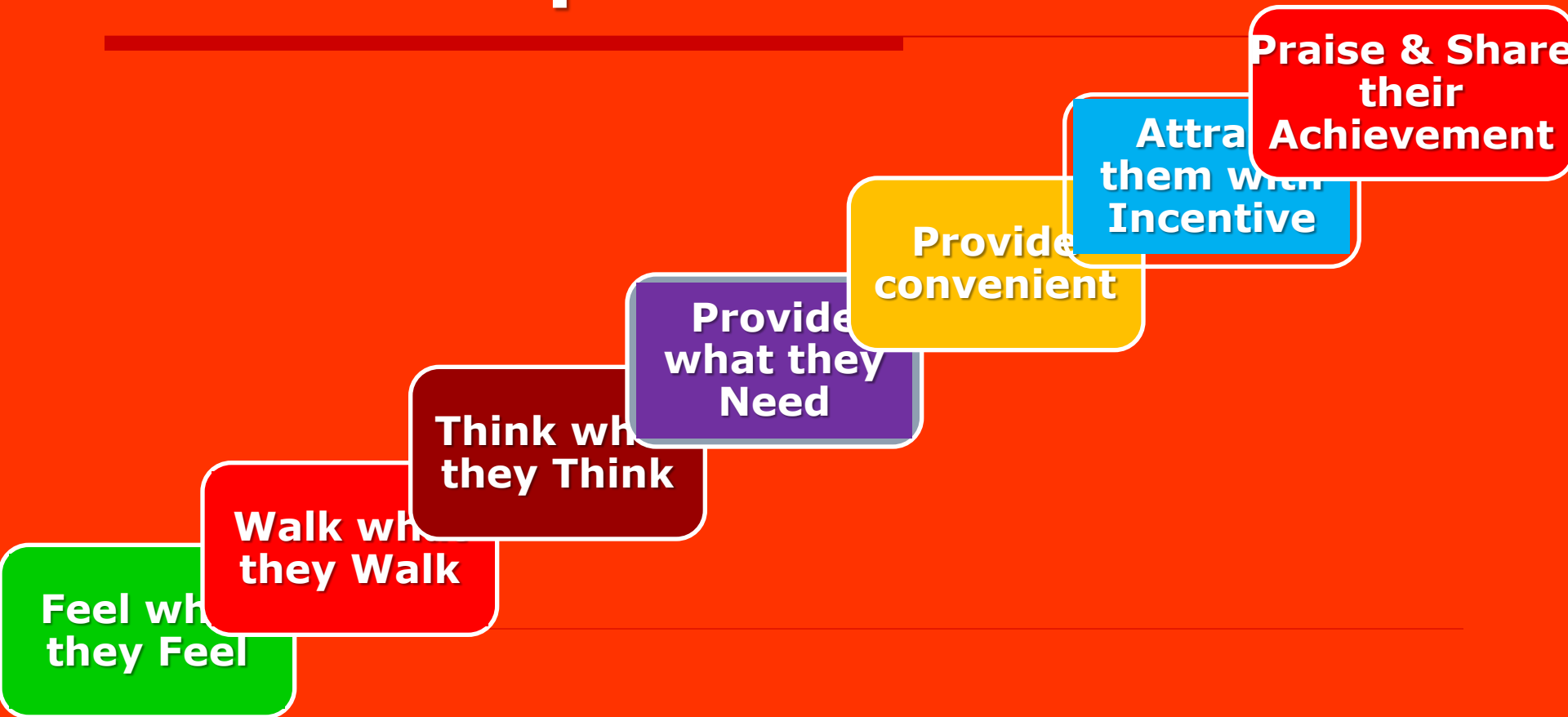


Permeant Horizontal Lifeline

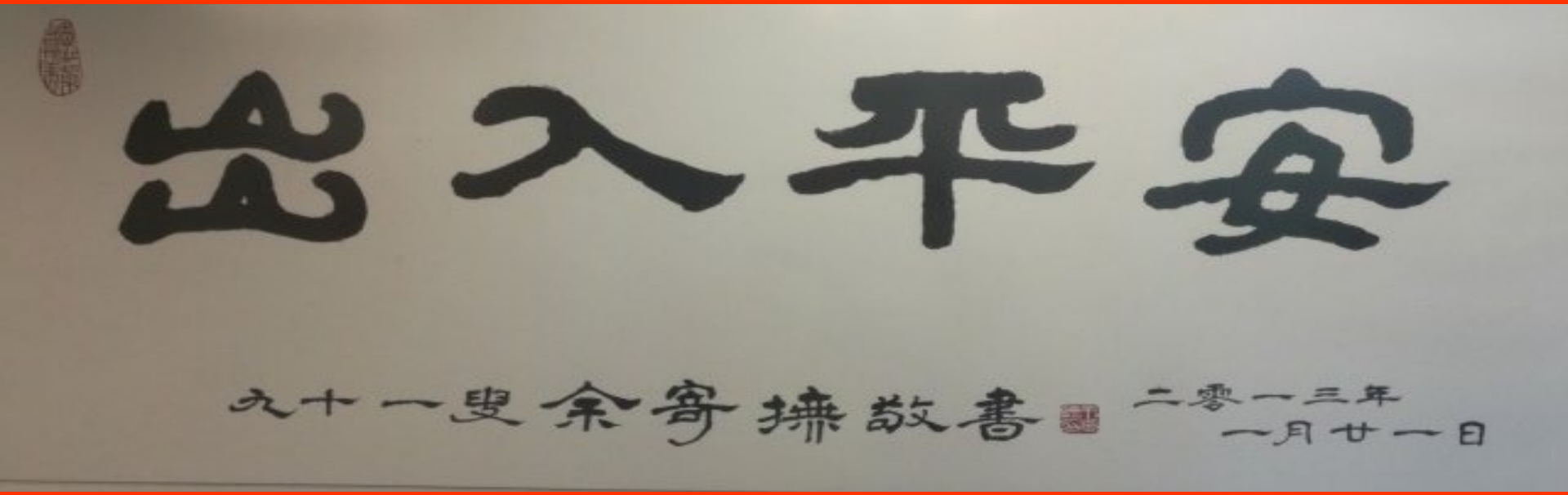



K
J F
I F
I F
H F
H F
S1-1B-106
5500kg

Keys steps for success implementation



OUR ULTIMATE TARGET


出入平安
二零一三年
一月廿一日
書敬撫寄余叟一十九

職安健聯會
FOSHA
HONG KONG

謝謝大家

職安健聯會
FOSHA
HONG KONG

謝謝大家