



**BUILDING MAINTENANCE UNIT (BMU) • MECHANIZED CAR PARKING SYSTEM  
SUSPENDED SCAFFOLD (GONDOLA) • MINOR A&A WORK**

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## About Us

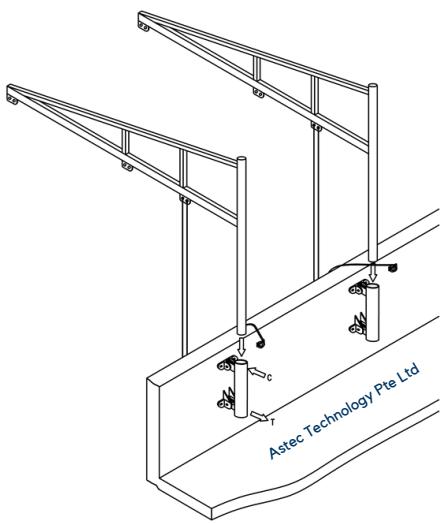
Astec Technology, our business focuses on 3 main trades on **Permanent BMU Gondola System**, **Suspended Scaffold (Gondola)** and **Mechanized Carparking System**. We are also proud to be solutions provider starting from an early contractor involvement stage till completion to maintenance stage.

Our proven track records include various type of gondola systems for completed projects which include residential, commercial, industrial, health institution, educational institution buildings and complex building facade. We have completed more than 300 projects for more than 120 customers.

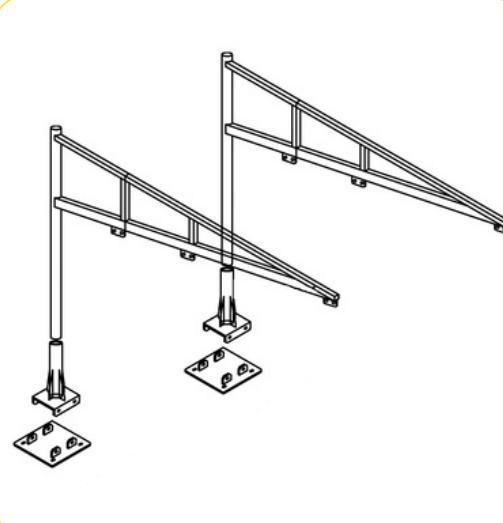
Safety is our utmost priority. Astec Technology has achieved **ISO 45001:2018** and **BizSafe Star Level** certification. We hold an unwavering commitment to ensuring the safety and well-being of our employees, clients, partners, and the communities in which we operate.

Our vision is to provide continual commitment to providing the highest possible standard of Safety compliance and Solutions toward customer satisfaction

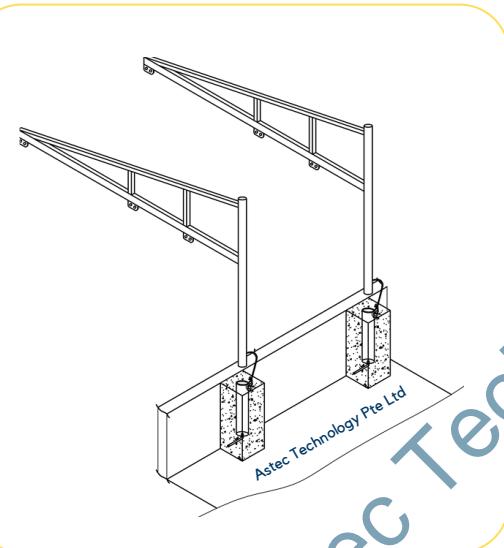
# BUILDING MAINTENANCE UNIT (BMU)



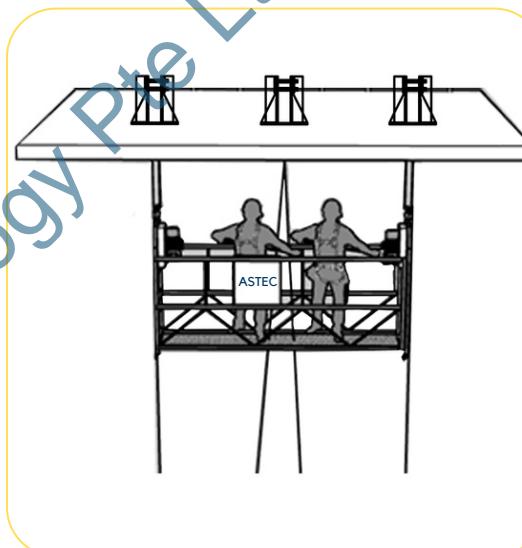
**BMU (Wall Mounted) System**



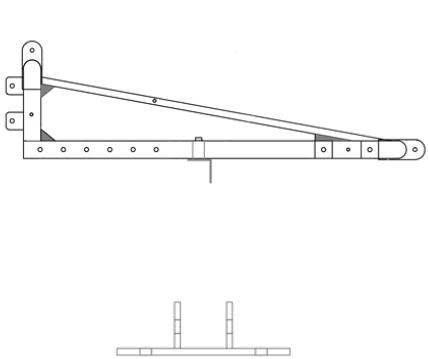
**BMU (Slab Mounted) System**



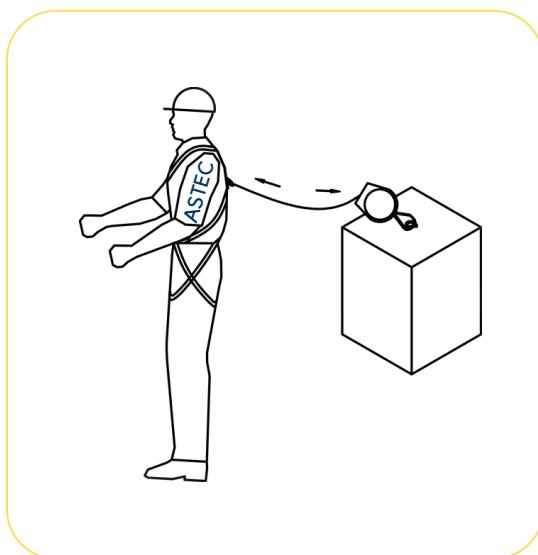
**BMU (Cast - in) System**



**BMU (Drop - Thru) System**



**BMU (Doggie Arm) System**

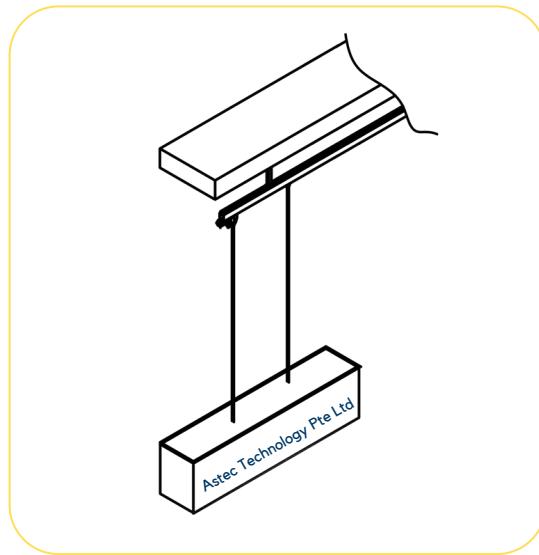


**BMU (Anchorage Ring) System**

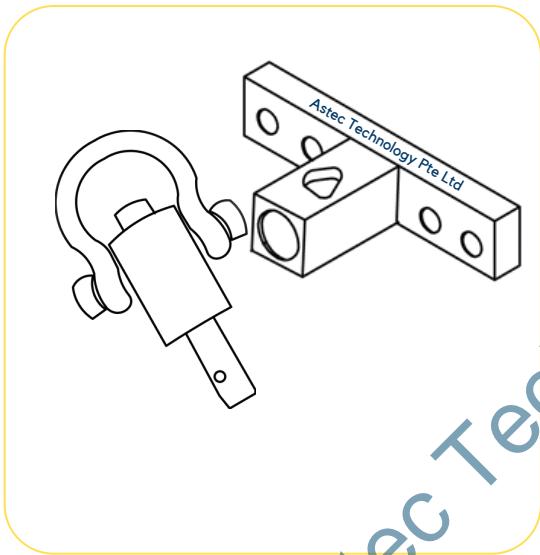
# BUILDING MAINTENANCE UNIT (BMU)



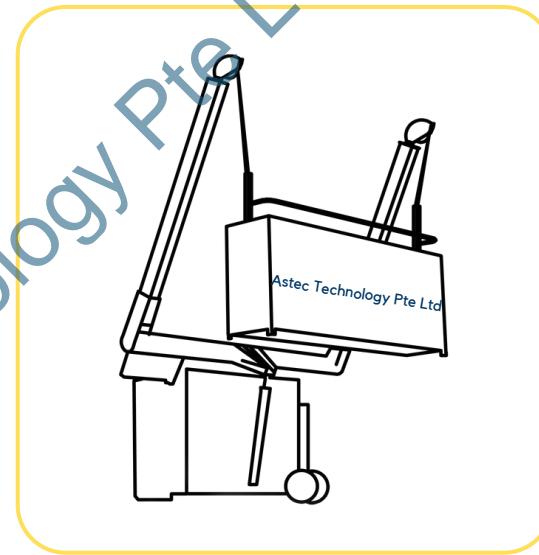
BMU (Lifeline) System



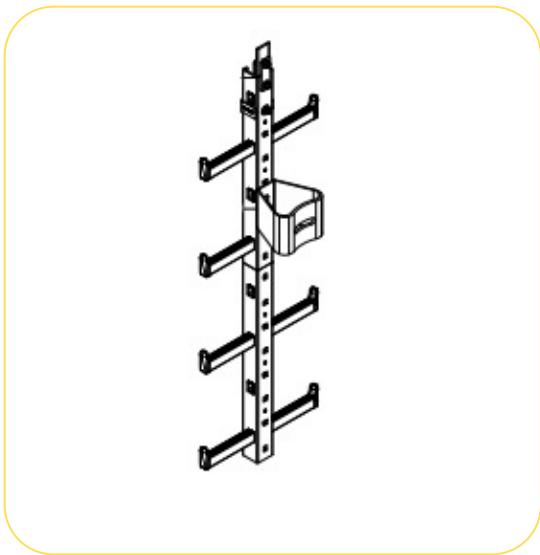
BMU (Monorail) System



BMU (Restraint Socket) System



BMU (Powered Gondola) System

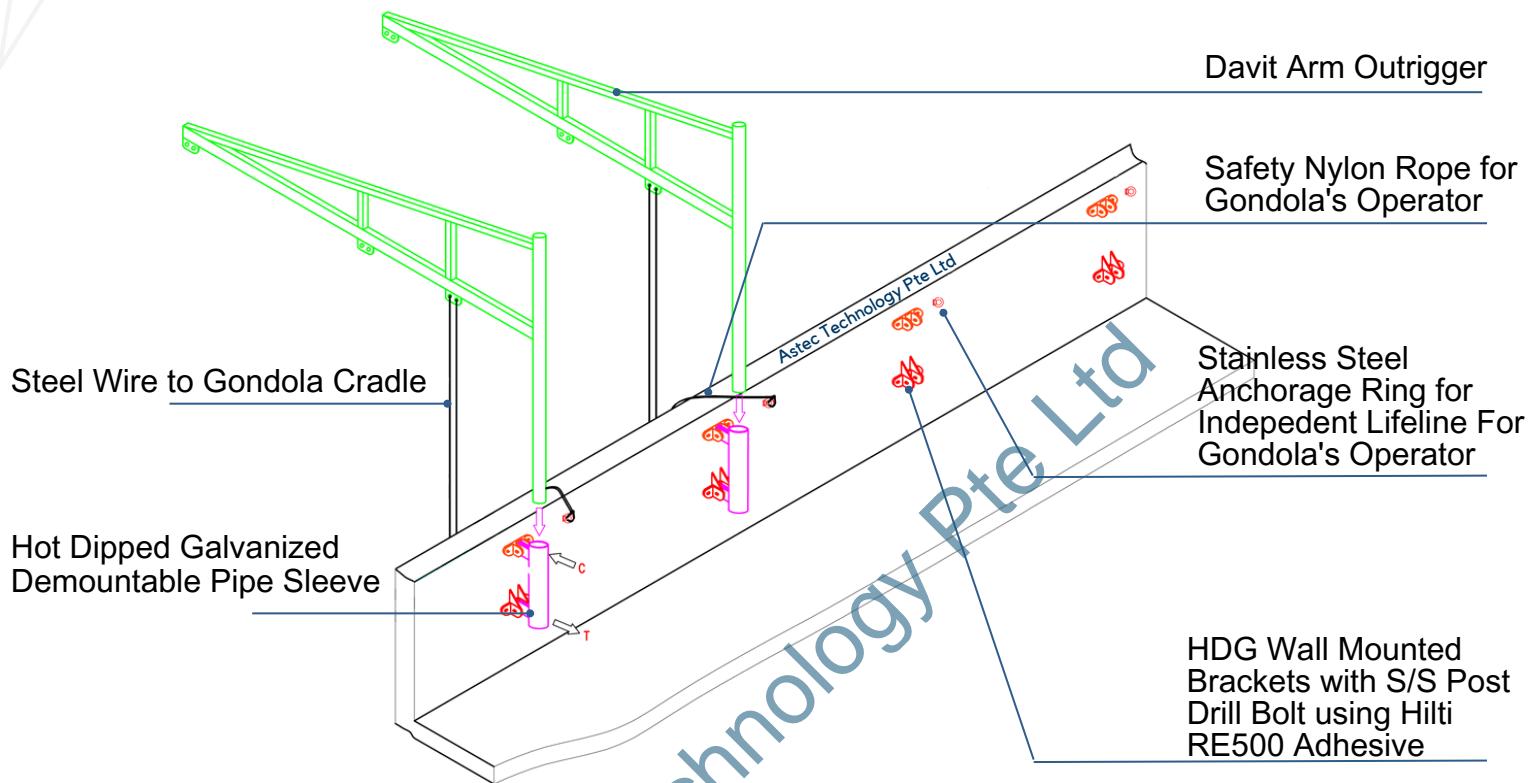


Cat Ladders without Cage



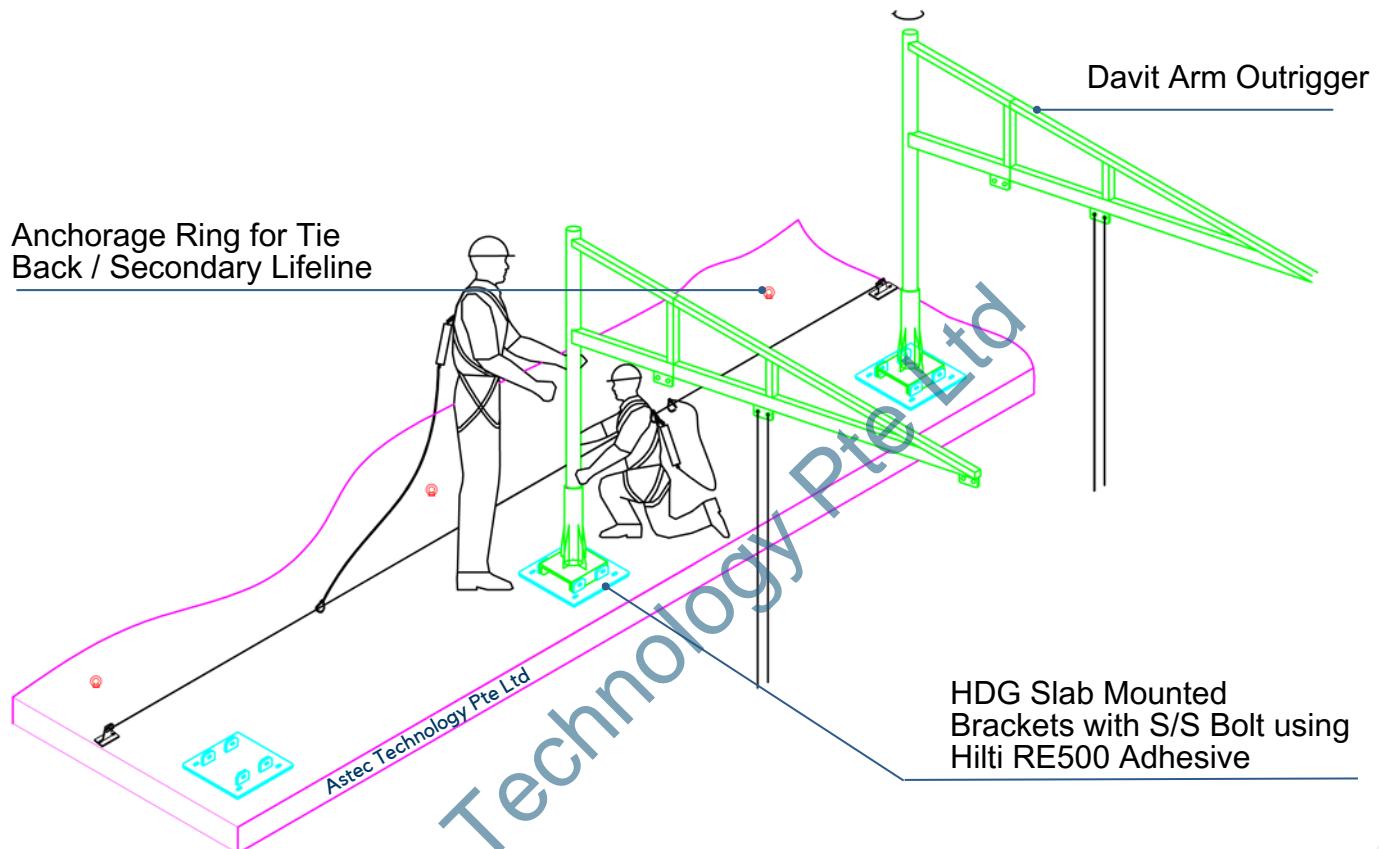
## BMU (Wall Mounted) System

- Usually used for area with R.C. parapet walls or steel structure support
- Alternatively, the brackets could be concealed in Aluminium or stainless steel cover for better aesthetic at area accessible by public.



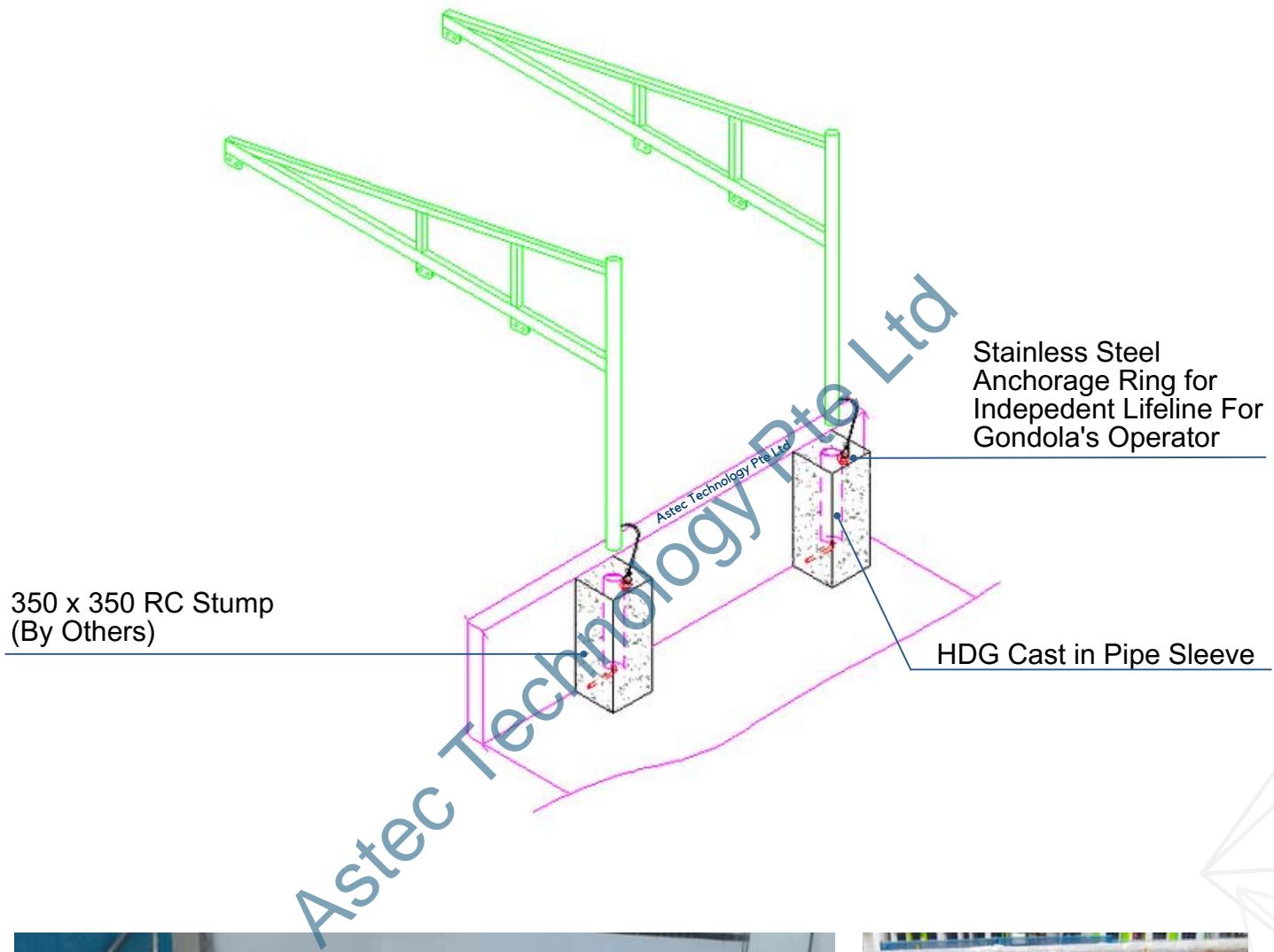
## BMU (Slab Mounted) System

- Usually used at R.C. flat roofs or any areas where there are no R.C. parapet walls or the height of the parapet wall is too low.
- Alternatively, the brackets could be concealed in aluminium or stainless steel cover for better aesthetic at area accessible by public.



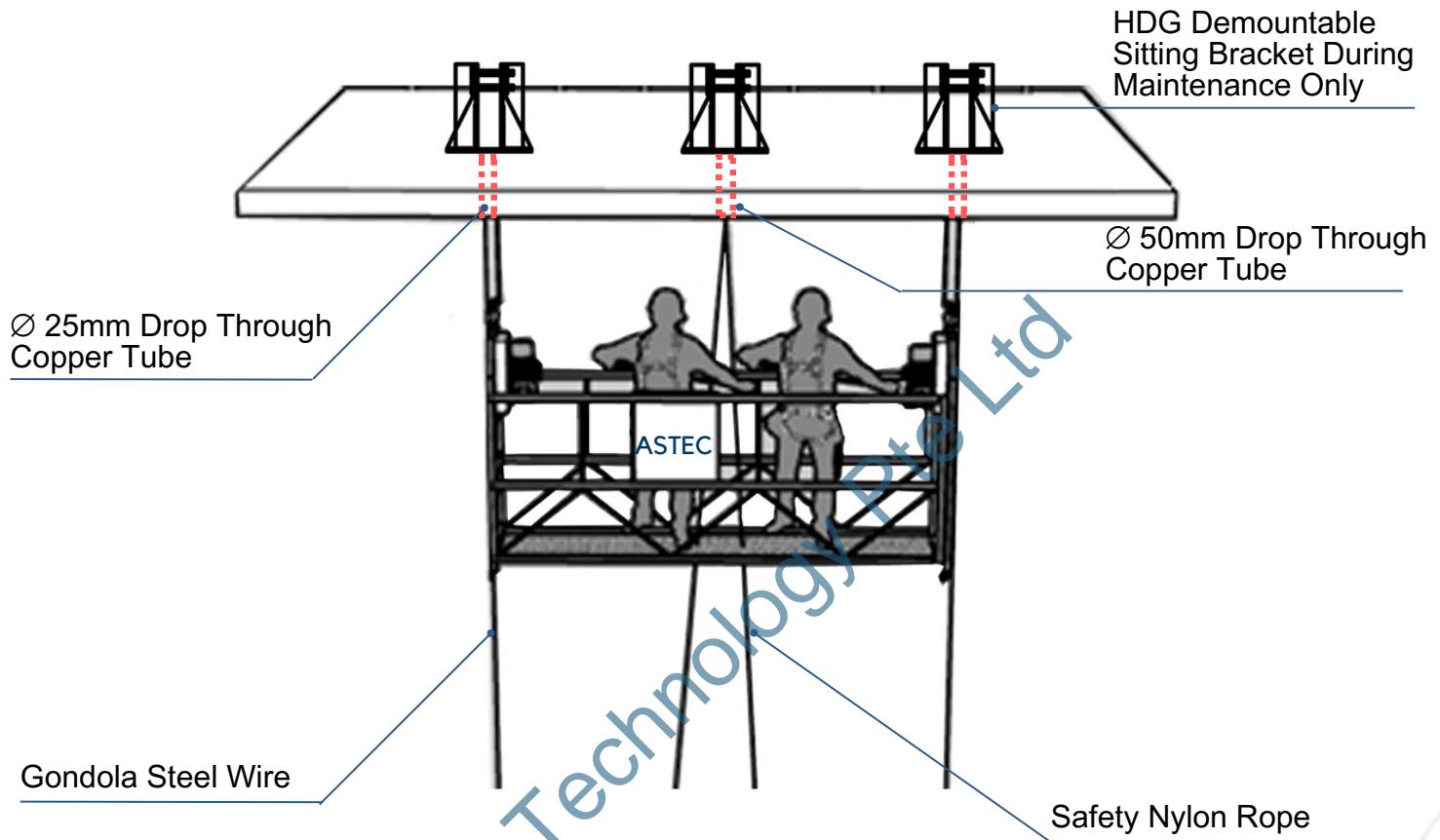
## BMU (Cast - In) System

- Usually used in planter boxes, podium areas, and also roof terraces
- This system is aesthetically more pleasing compared to BMU (Wall Mounted) System.
- R.C. Stumps (by others) are required for this system .
- Usually, hot dipped galvanized pipe sleeves will be used for this system.
- Alternatively, Stainless Steel pipe sleeves will be used at swimming area.



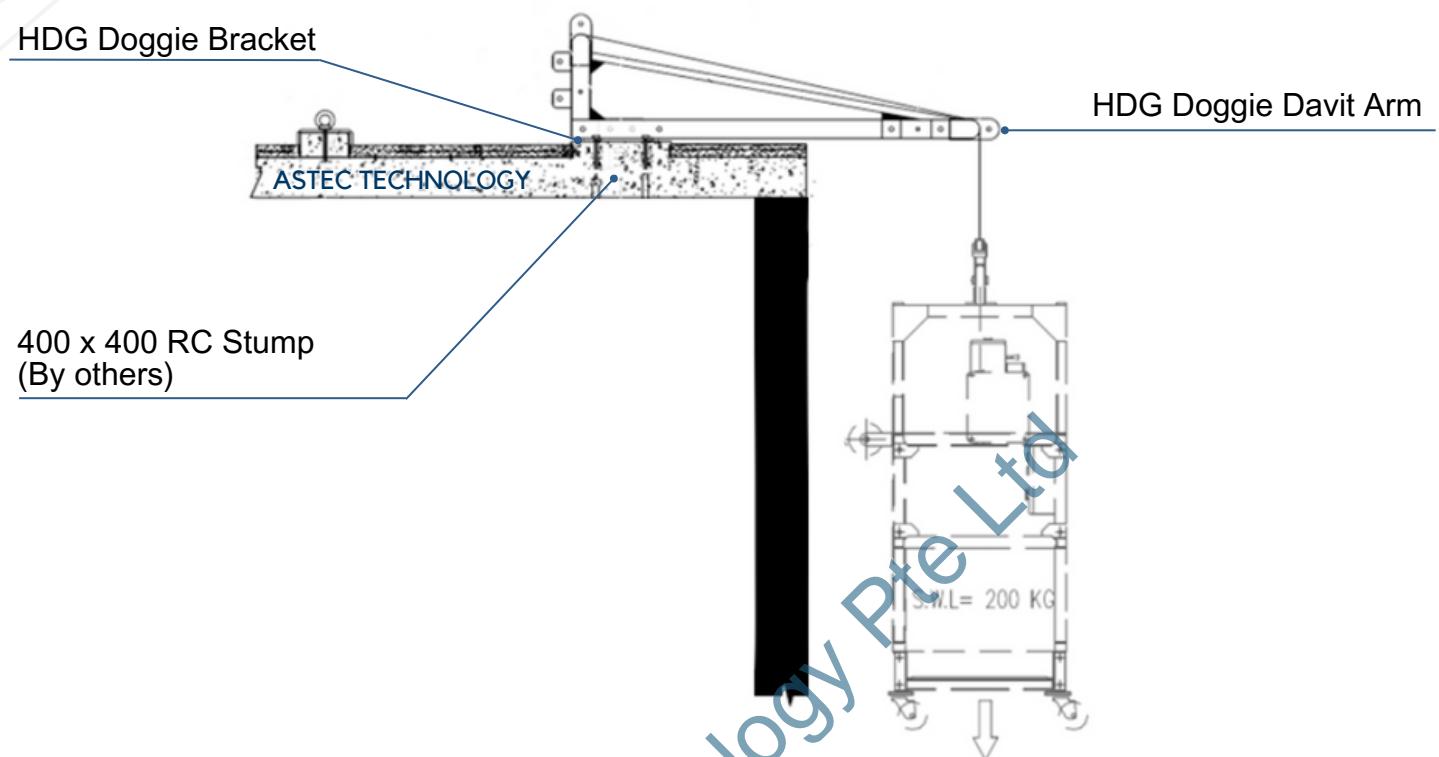
## BMU (Drop - Thru ) System

- Usually proposed for those areas with the building line set in and not accessible by the Perimeter BMU System.
- This system comprises of the Copper Tubes, Drop Thru Brackets and independent Lifeline Drop Thru Bracket



## BMU (Doggie Arm ) System

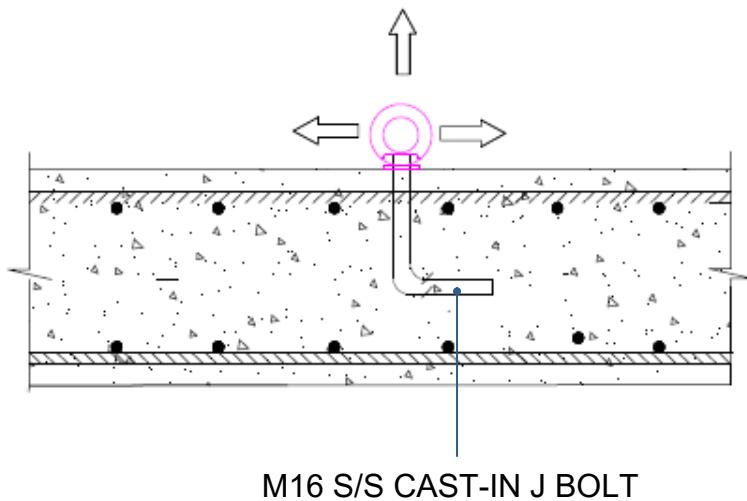
Usually proposed for those areas with Above Mean Sea Level (AMSL) restriction.



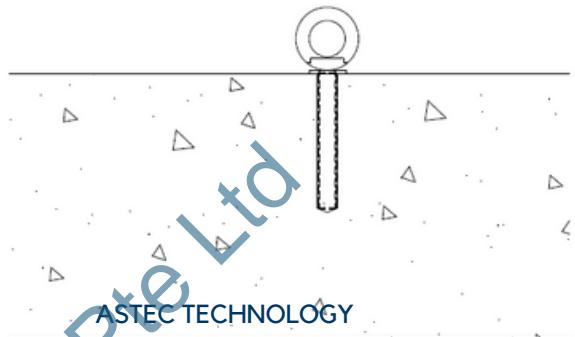
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## BMU (Anchorage Ring) System

- For the purpose of building maintenance, this system is usually proposed at areas with restrictions of using Davit Arm System such as Air Con Ledges, recess area of the building.
- For Fall Arrest & Protection System, anchorage Rings are used as the anchor points for lifeline by Maintenance Personnel and Gondola Operators

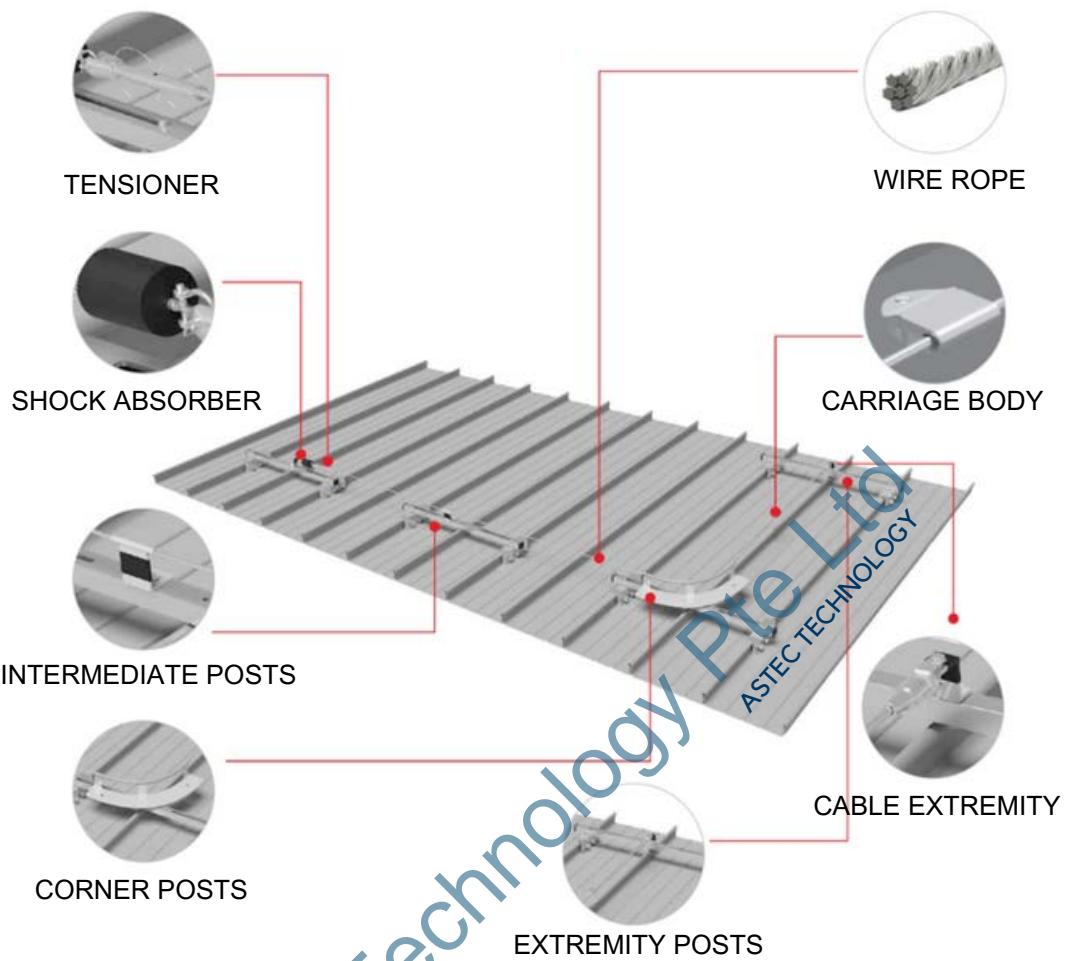


EYEBOLTS WITH CHEMICAL CAPSULE



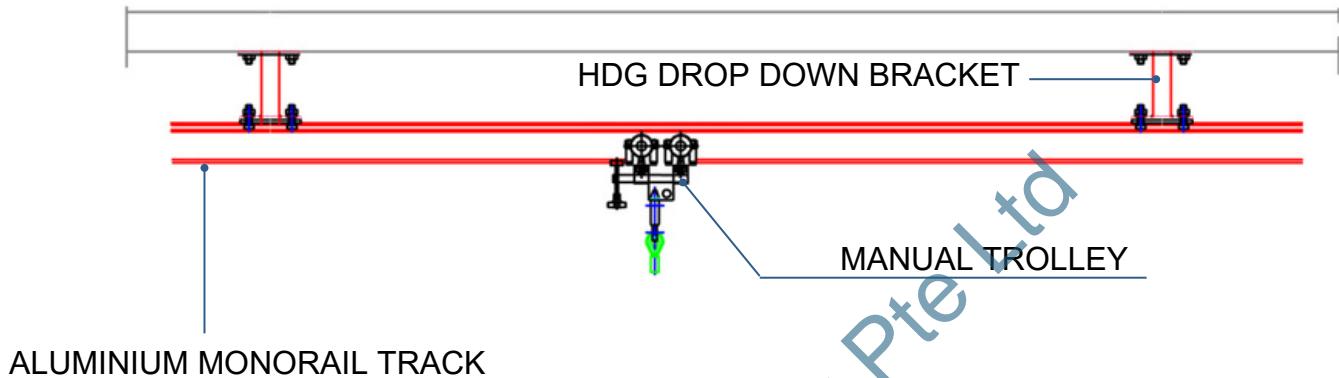
## BMU (Lifeline) System

- Usually proposed at area such as R.C. Flat Roof , Metal Roofing and Steel Trellis.
- This system is aesthetically more pleasing compared to BMU (Anchorage Ring) System



## BMU (Monorail) System

- Monorail systems are suitable for both outdoor and indoor use, they could be mounted on the face of the facade, recess area, or inside an atrium.
- The monorail track can be fixed to a wall or soffit of slab, or even etched into the building's structure. The track can be configured horizontally, vertically or on an incline, which allows the system to cover complex routes.

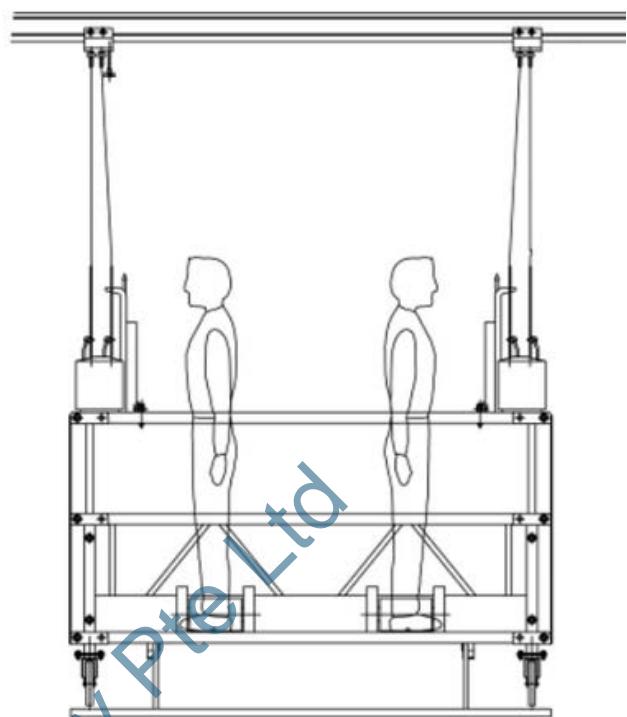


MONORAIL TROLLEY



MONORAIL TRACK

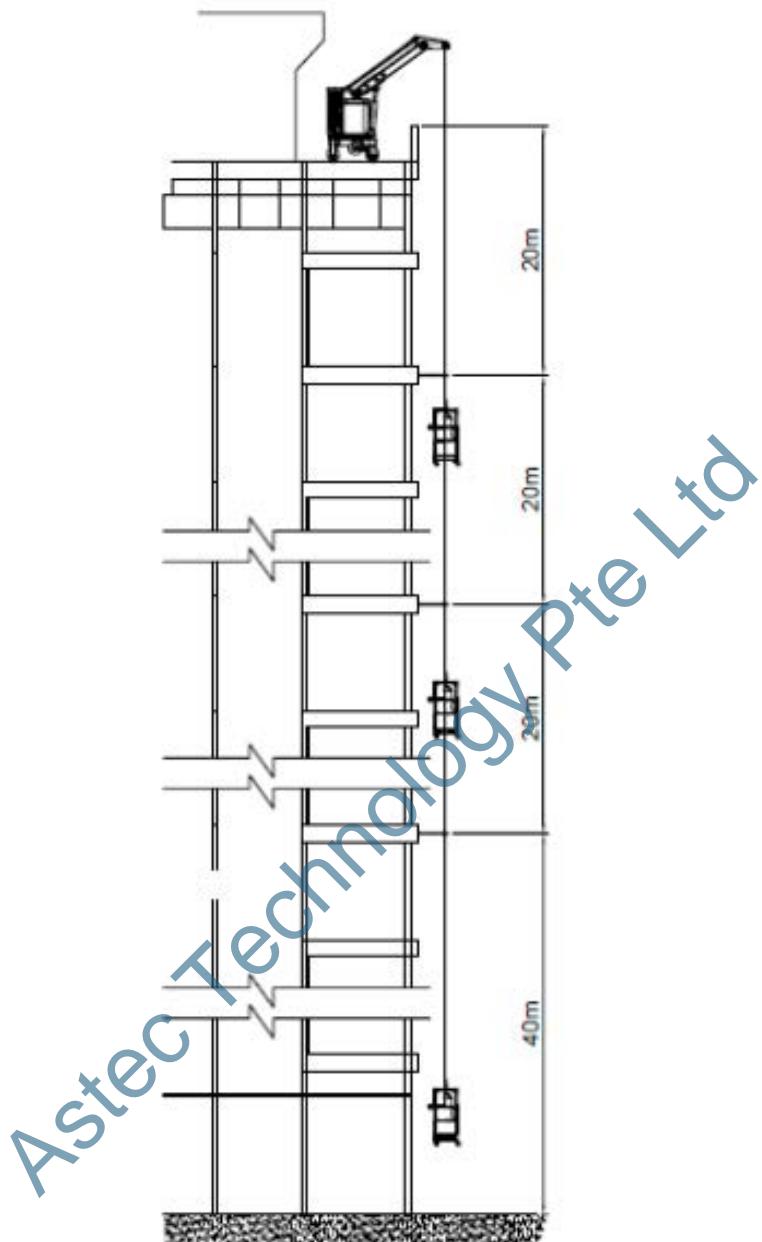
## BMU (Monorail) System



CANTILEVERED MONORAIL SYSTEM

## BMU (Restraint Socket) System

- SS598-2014 Sway Restraint System Requirement, the lowest restraint point shall not be more than 40 m above the lowest working level when the wind speed is 14m/s
- The distance between restraints above 40 m shall not exceed 20 m.



R.C. Type Female Restraint Socket



Facade Type Female Restraint Socket



Male Restraint Socket Pin

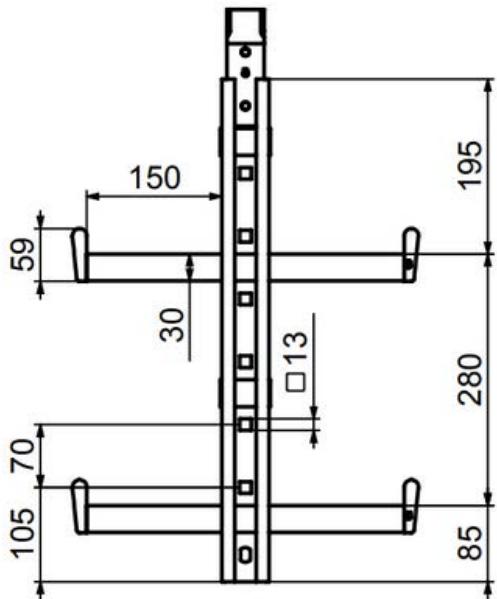
## BMU (Powered Gondola) System

- This is a permanent mechanical access equipment generally installed on the building 's roof level that is operated for building maintenance.



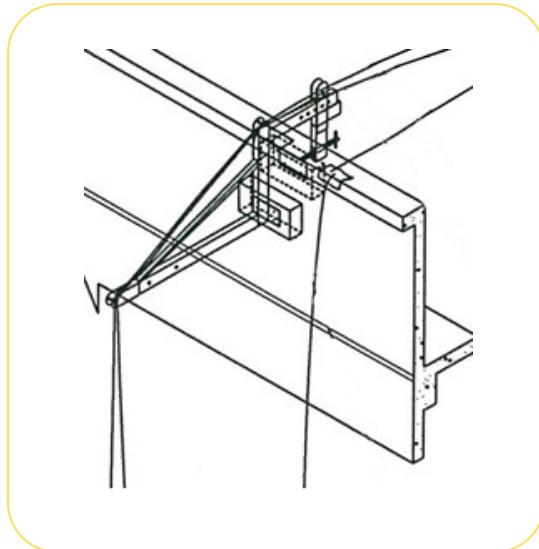
## Cat Ladder without Cage

- Y-Spar is a cost-effective alternative to a traditional ladder
- Max. section length 4,480 mm
- Rung distance 280 mm
- Step width per side 150 mm
- Material is using anodized aluminum

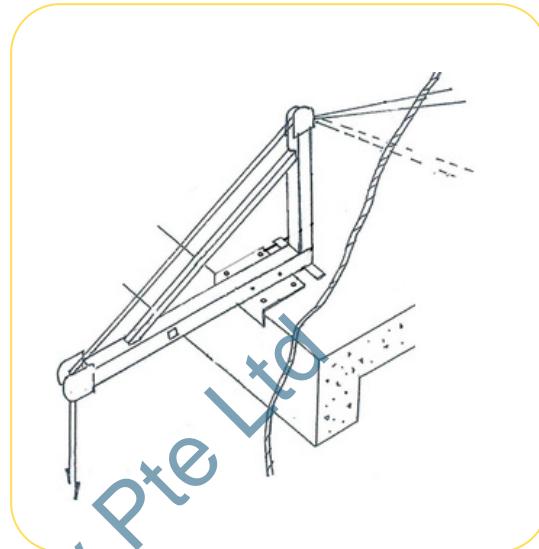


# SUSPENDED SCAFFOLD (GONDOLA)

## GONDOLA CRADLE TO BE INSTALLED ON TEMPORARY BRACKET SYSTEM



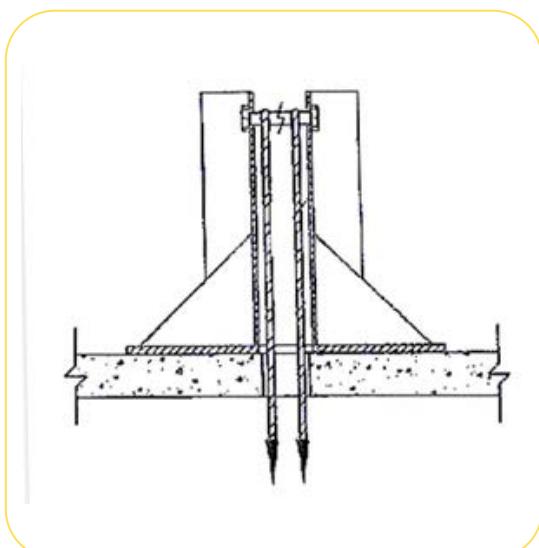
Parapet Bracket System



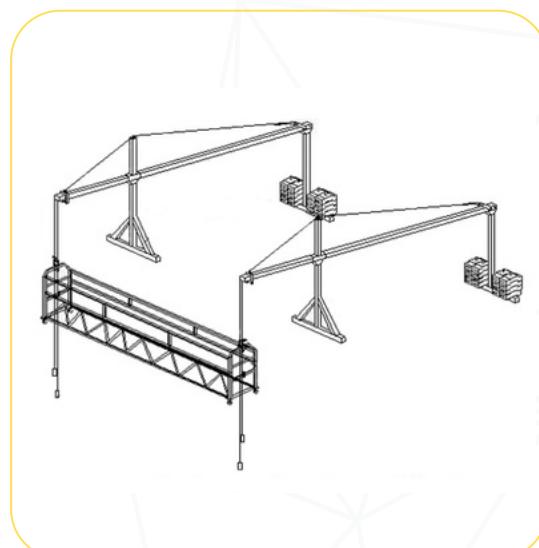
Flat-Roof Bracket System



Cradle Length = 1m, 1.5m, 2m, 2.5m, 3.0m, 4.0m & 5.0m



Drop-Thru Bracket System

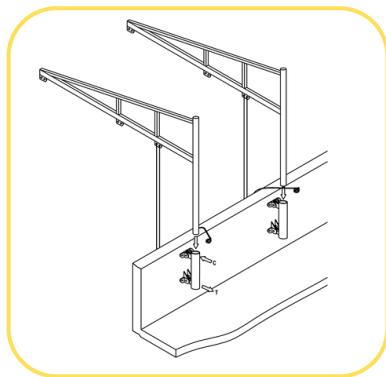


Counterweight System

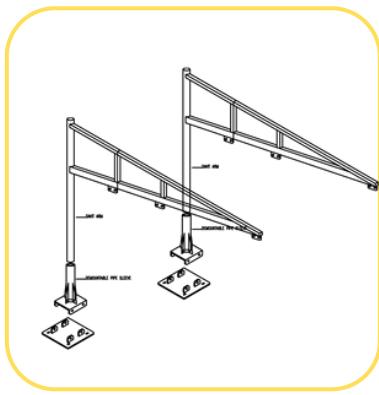


# SUSPENDED SCAFFOLD (GONDOLA)

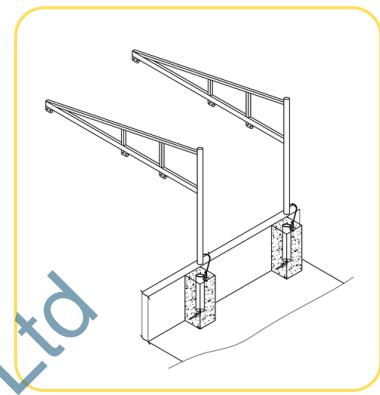
## GONDOLA CRADLE TO BE INSTALLED ON PERMANENT BMU SYSTEM



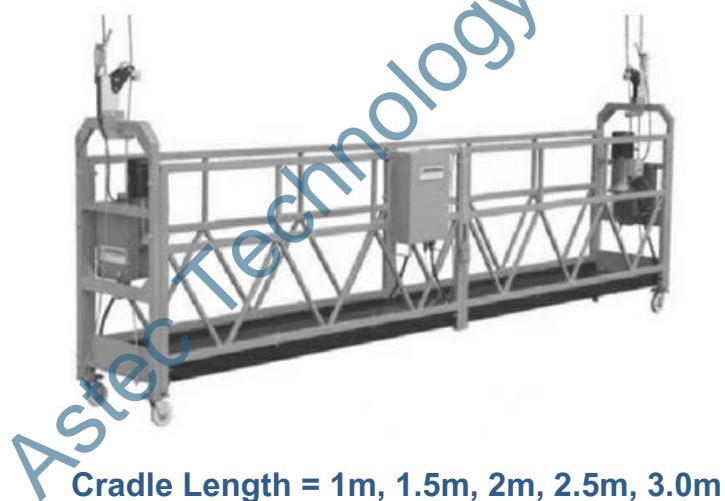
BMU (Wall Mounted) System



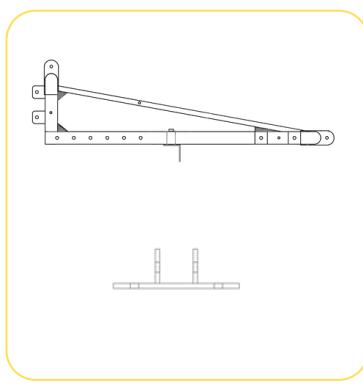
BMU (Slab Mounted) System



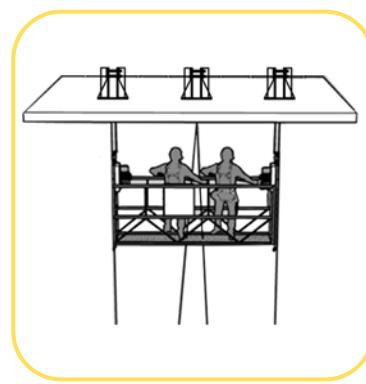
BMU (Cast - in) System



Cradle Length = 1m, 1.5m, 2m, 2.5m, 3.0m



BMU (Doggie Arm) System



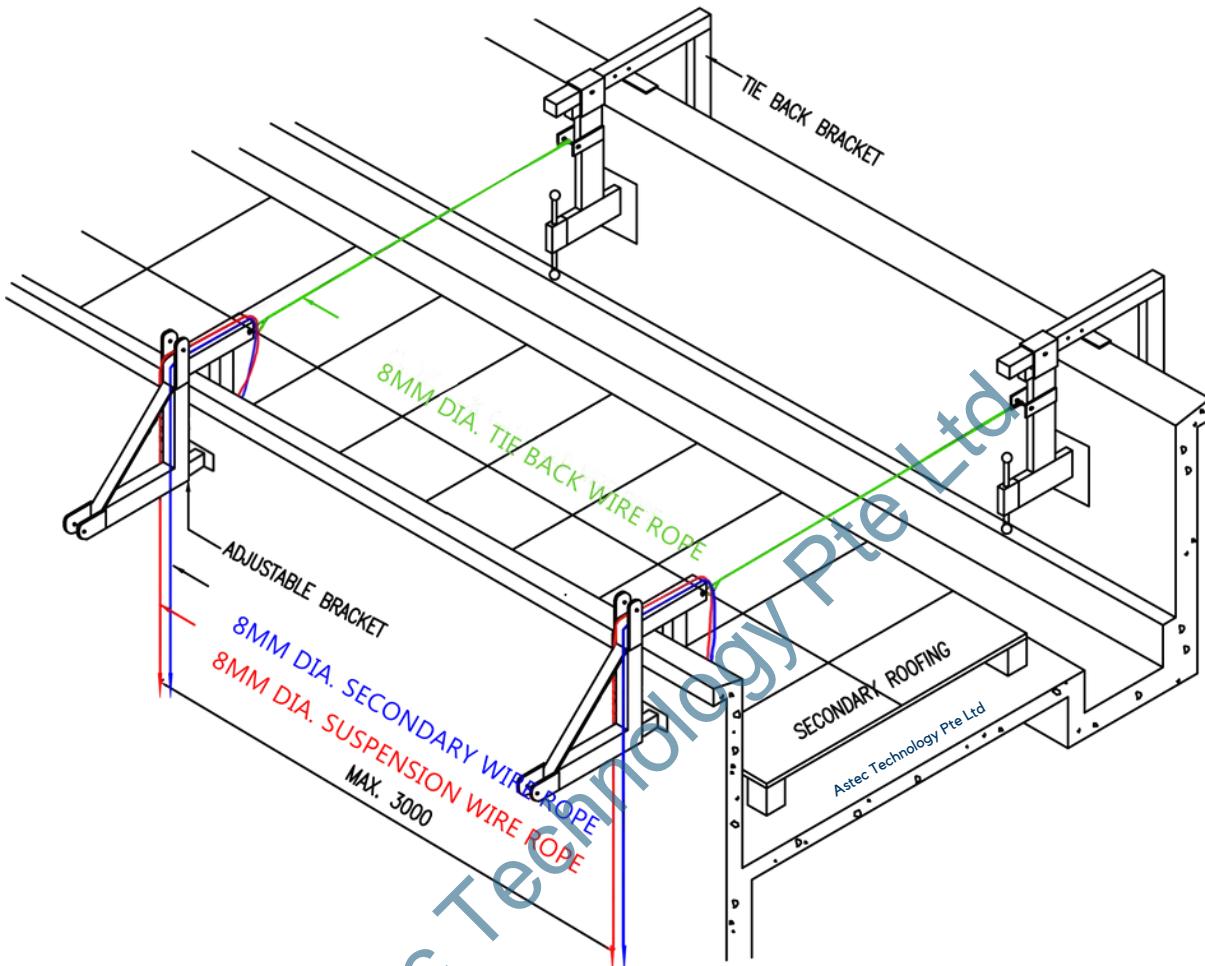
BMU (Drop - Thru) System



# SUSPENDED SCAFFOLD (GONDOLA)

## Suspended Scaffold ( Gondola) installed on Parapet Bracket System

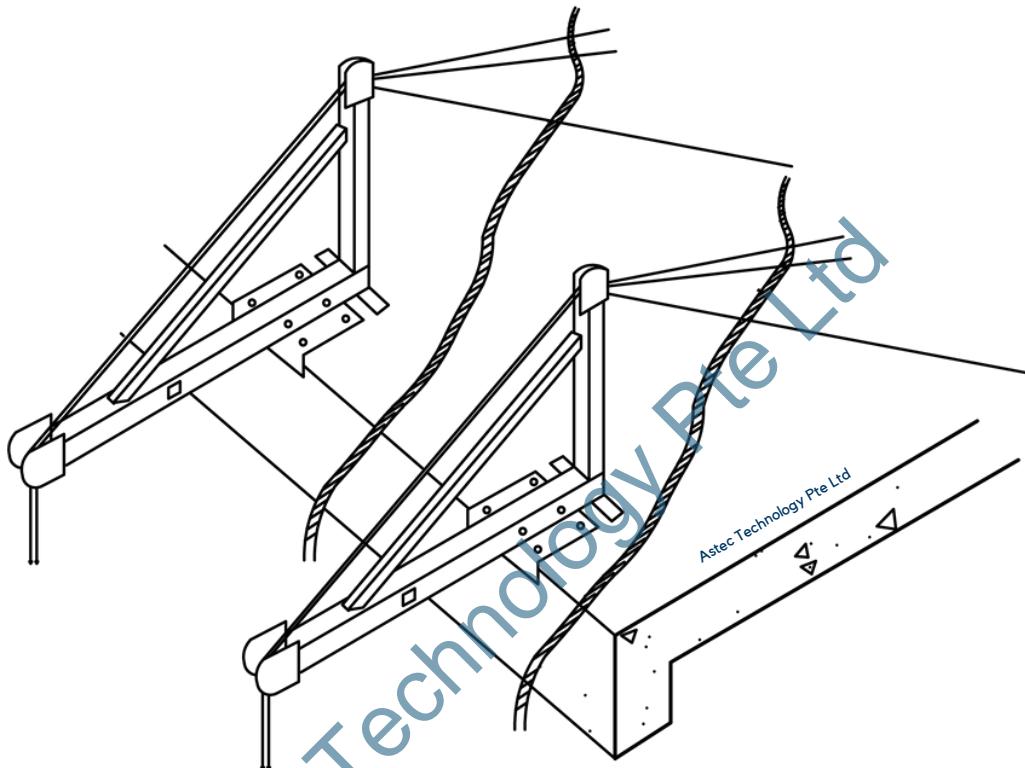
- Gondola cradle will be secured to Parapet Brackets by Suspension and secondary wire rope.
- The Wire ropes , Gondola Operators' Lifeline and Parapet brackets are anchored to these structures, such as Parapet Clamp, RC Beam, RC Column, RC Stiffener, or C-Channel Brackets



# SUSPENDED SCAFFOLD (GONDOLA)

## Suspended Scaffold ( Gondola) installed on Flat-Roof Bracket System

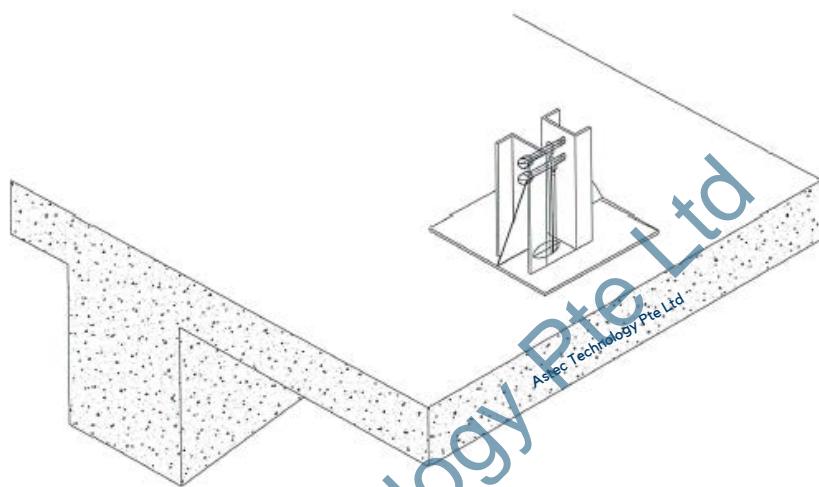
- This system is suitable for maintenance area without R.C. Parapet Wall
- Gondola cradle will be secured to Flat-Roof Brackets by Suspension and secondary wire rope.
- The Wire ropes , Gondola Operators' Lifeline and Parapet brackets are anchored to these structures, such as Parapet Clamp, RC Beam, RC Column, RC Stiffener, or C-Channel Brackets



# SUSPENDED SCAFFOLD (GONDOLA)

## Suspended Scaffold ( Gondola) installed on Drop-Thru Bracket System

- This system is suitable for maintenance area which is recess
- Gondola cradle will be secured to Sitting Brackets by Suspension and secondary wire rope.
- The Wire ropes , Gondola Operators' Lifeline and Parapet brackets are anchored to these structures, such as Parapet Clamp, RC Beam, RC Column, RC Stiffener, or C-Channel Brackets

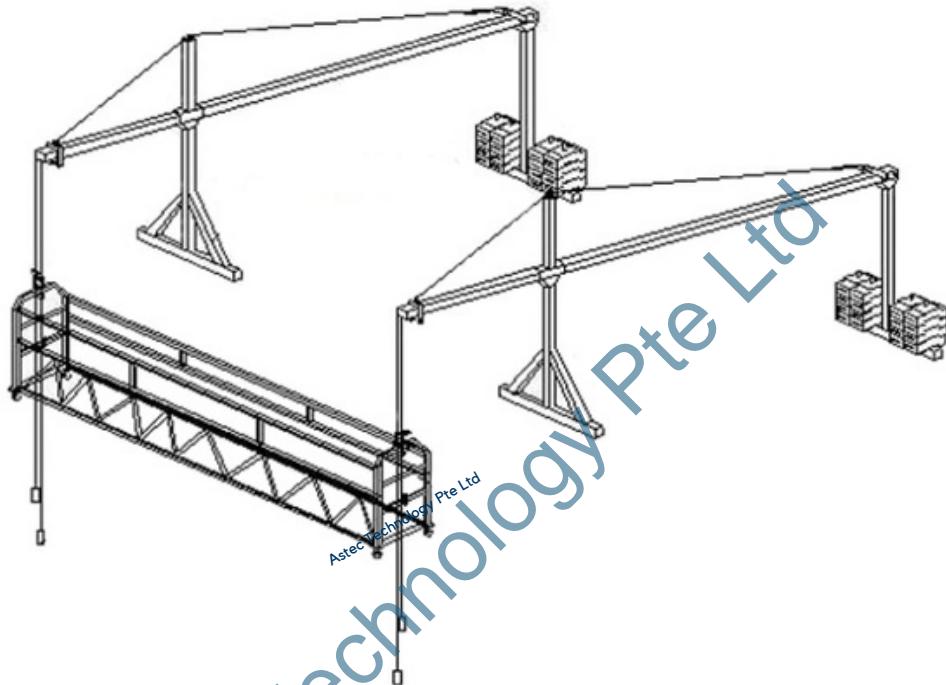


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# SUSPENDED SCAFFOLD (GONDOLA)

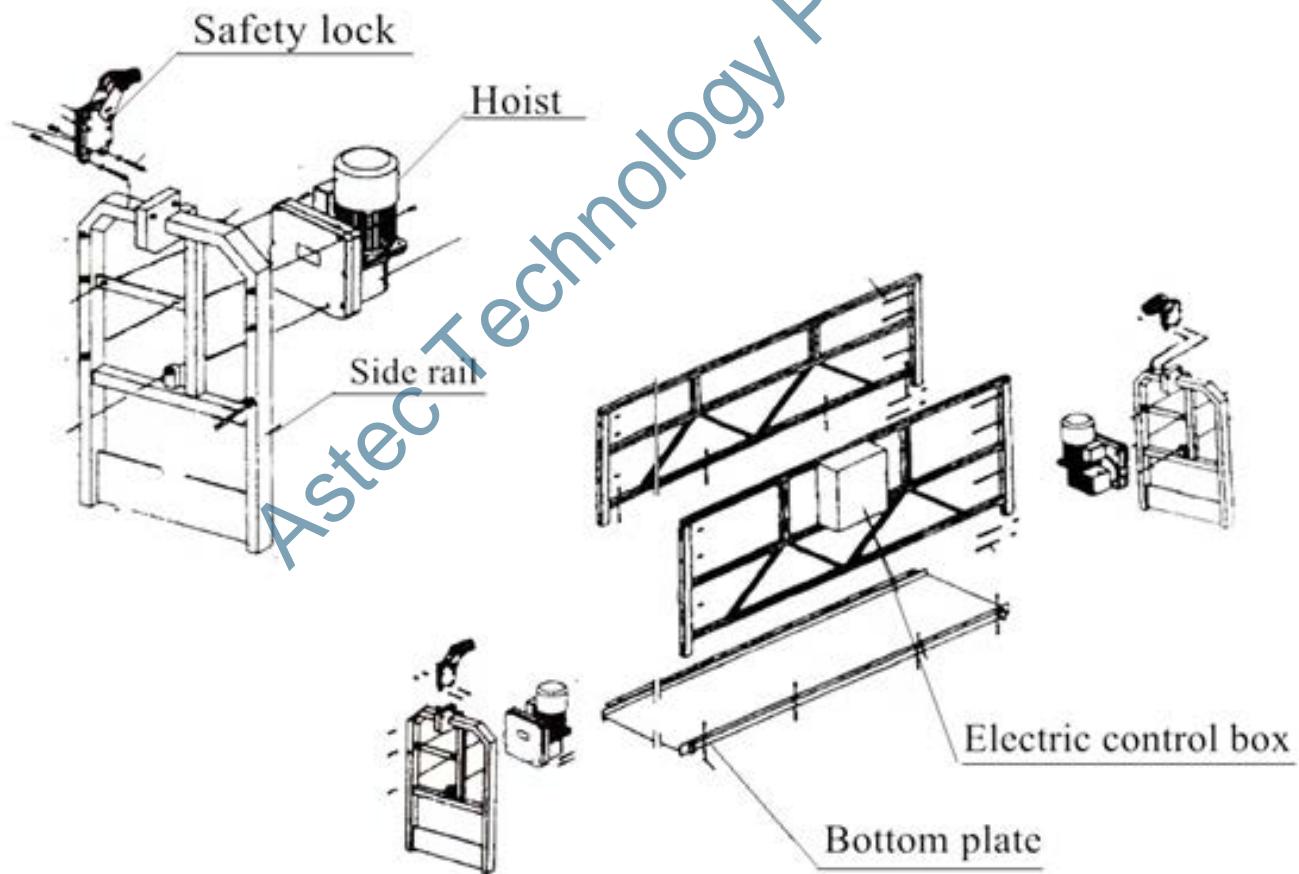
## Suspended Scaffold ( Gondola) installed on Counterweight System

- This system is suitable for maintenance area which does not allow drilling to existing structure.
- This system is adopted when parapet and Flat-Roof Bracket system could not be used as these system requires drilling to the existing structure.



# SUSPENDED SCAFFOLD (GONDOLA)

## GONDOLA CRADLE SPECIFICATIONS



# PROJECT REFERENCE

## OUR CLIENTS



美圖鋁建環球有限公司  
AVA GLOBAL Pte Ltd



Far East Organization  
INSPIRING BETTER LIVES



NEWCON BUILDERS PTE LTD



KAJIMA-ASIA PACIFIC HOLDINGS PTE. LTD.



謝工程私營有限公司  
SEAH CONSTRUCTION PTE LTD



Lian Soon Construction Pte Ltd



WOH HUP  
BUILDING WITH INTEGRITY



长成控股



美达建筑私人有限公司  
Meida Construction Pte Ltd.



## PROJECT REFERENCE

Please download our latest Past & Present Project Reference at the following link:

[www.astec.com.sg/download](http://www.astec.com.sg/download)

or



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