


 JINWOO SMC

# FIRE FIGHTING VEHICLE

As a Global Enterprise  
JINWOOSMC is spreading  
throughout the world

## FIRE FIGHTING VEHICLE

 JINWOO SMC CO.,LTD.

Head Office / Gimje plant

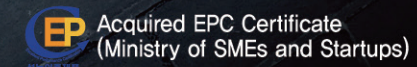
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 JINWOO SMC CO.,LTD.

## Firefighting Industry Award Prime Minister Award



### As a Global Enterprise JINWOOSMC is spreading throughout the world!

Established in 1992 as a Special Machineries company, we started to mass produce “Elevating Work Platforms” from 1998 as the country was focusing on reconstruction due to IMF crisis. Due to expansion in our products range, we established limited company “JINWOO SMC Co., Ltd.” in 2007. We started to produce various kinds of multi-purpose special machineries according to the technological trends in domestic as well as international markets.

Due to advancement of innovative high-end technologies in Korea, huge overseas demands for Korean products exist all-around the world. We started export in 2008 to Iraq ; followed by Middle-East, Asia in 2009 & mainly Canada, Philippines and Singapore in 2010. Thereafter ; to Iraq, Bangladesh, Iran, UAE, Vanuatu, Saudi Arabia, China, India since 2011. Then expanded export to Malaysia, Russia, Ghana in 2012 ; Peru, Indonesia, Vietnam in 2013 ; Kuwait, Uzbekistan, Turkmenistan in 2014 ; Thailand, Sri Lanka, Qatar in 2015, and since then we have been exporting to these countries.

Especially we developed Demolition Water Cannon Fire-fighting vehicle for first time in Korea in 2015, since then 14 units are delivered by successful bid to the Korean government - “Ministry of Public Safety and Security” as well “National 119 Rescue Headquarters”. Hence, we set-up mass production, special design and testing centers in newly established Head-office in 2020. So we set up mass production system, and presently participating in global tenders.



 JINWOO SMC CO.,LTD.

## FIRE FIGHTING VEHICLE

### HISTORY

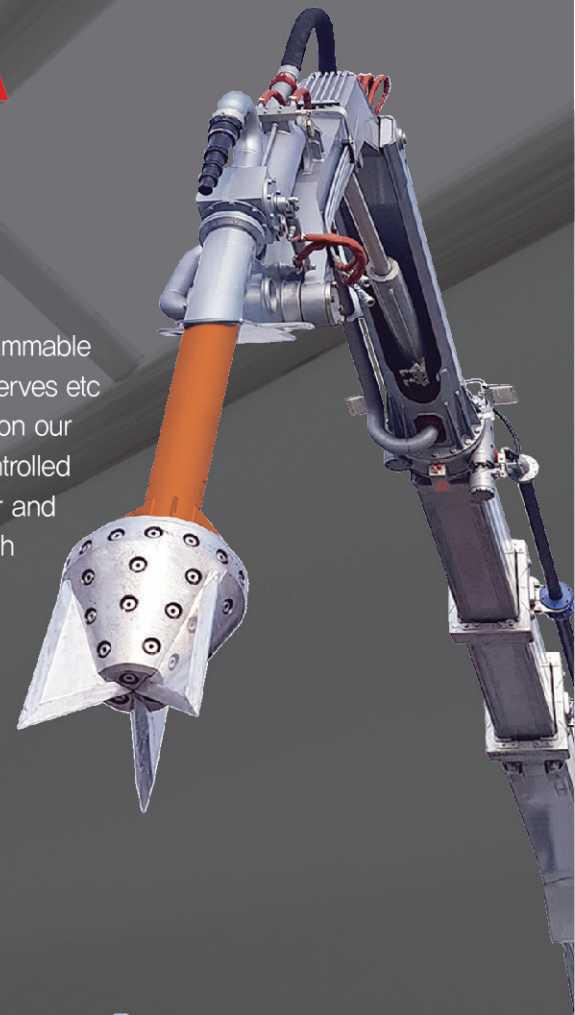
- |         |  |         |  |
|---------|--|---------|--|
| 1998 12 | Jinwoo Machinery was established.  | 2015 12 | Acquired KFI certificate   |
| 2007 10 | Jinwoo SMC Co., Ltd. was established.  | 2016 02 | Awarded Minister of Public Safety and Security   |
| 2008 01 | The certificates of ISO9001/quality & ISO14001/ environmental were granted   | 07      | Selection of the National Safety robot technology development projects                                       |
| 02      | Nominated as a venture business by Korean Government   | 11      | Awarded Head of the Small and Medium Business Prime Minister   |
| 06      | Developed aerial work platform of both 45M, 67M  | 12      | Acquired KFI certificate(Demolition Fire Apparatus)  |
| 11      | Aerial work platform of 40M was exported to Iraq   | 12      | Acquired EPC certificate (Excellent Performance Certification)   |
| 2009 02 | Developed aerial work platform of 75M height   | 2017 03 | Certificate of Designation for an excellent company(Public Procurement service)                              |
| 04      | Approved Certification by Korea Food and Drug Administration for Super Specialty Ergonomic Medical Bed ~ Govt. Sponsored Health Care Project | 05      | Certificate of Designation for an Excellent Inventions (Korean Intellectual Property Office)                 |
| 05      | Approved manufacturing the refrigerating machine   | 06      | Certificate of Designation of Excellent Product (Public Procurement service)                                 |
| 09      | Approved GMP(good manufacturing practice) for production of medical equipment and quality management.  | 09      | Signed procurement unit price contract   |
| 12      | Developed sterilizer for welfare medical device  | 2018 04 | Receipt of Excellence award from Prime Minister for successful functioning of advanced Fire-Fighting vehicle |
| 12      | Increased capital (KRW200,000,000,-)   | 2019 04 | Development and certification of compact Fire-fighting vehicle of 20m height, on just 8.2tons GVW vehicle    |
| 12      | Nominated as a Reliable and Promising Export SME by Govt. Authority  | 04      | Successfully developed and tested compact light-weight 20m Boom Firefighter                                  |
| 2010 01 | Established the exclusive Research and Development center  | 12      | Developed 52m(Jinwoo540) Working Height for sophisticated works  |
| 11      | Awarded One Million Dollar's Export Volume Performance by Korea Int'l Trade Association  | 2020 01 | Succeeded to obtain KFI(Korea Fire Institute) Certification for Compact 20m Boom Firefighter                 |
| 12      | Nominated again as Reliable and Promising Export SME by Govt. Authority  | 04      | Successfully developed and tested compact 20m Boom Firefighter with Water-Tank                               |
| 2011 10 | Developed Aerial ladder lift truck(Model 250L)   | 09      | Acquired Performance Certification (EPC) for compact 20m Boom Firefighter                                    |
| 12      | Nominated again as Reliable and Promising Export SME by Govt. Authority  | 09      | Succeeded to obtain KFI(Korea Fire Institute) Certification for Compact 20m Boom Firefighter with Water-Tank |
| 2012 03 | Acquired GOST certificate & started exporting  | 12      | Awarded Minister of Trade, Industry and Energy   |
| 06      | R&D task was selected by the National Emergency Management Agency  | 2021 03 | Certificate of Designation for Excellent Product (Compact Boom Fire-fighting Vehicle(3.5ton)                 |
| 2012 12 | Nominated again as a venture business by Korean Government agency  | 12      | Certificate of Designation for Excellent Product (Compact Boom Fire-fighting Vehicle(5ton)                   |
| 2013 05 | Developed Breaker of 2Ton capacity   | 2022 01 | Received commendation from the minister of employment & labor.   |
| 08      | Developed Mobile kitchen truck   | 01      | Received a prize from the minister of education  |
| 2014 02 | Developed aerial work platform of 45M height / articulating type   | 2023 05 | Developed firefighting aerial ladder vehicle ~ 32m height / telescopic boom type                             |
| 12      | Developed High (Sky) Lander  | 06      | Developed the firefighting vehicle for suppression of fire especially for electric passenger car             |
| 2015 06 | Acquired CE certificate  |         |  |
| 07      | Selection of the PHEV clean vehicles development projects  |         |  |
| 07      | Selection of the insulation aerial work platform(32m) development projects   |         |  |
| 08      | Developed "Demolition Fire Apparatus"  |         |  |



# JWF K210A

## Demolition and Rescue Fire-Fighting(DRFF) Vehicle

In the event of unexpected fire in a special zone with highly inflammable structures like in Chemical/Cement Plants, Oil and Natural Gas reserves etc first response is always key to control the fire and in such situation our specially research-developed world's rare Wireless Remote Controlled DRFF will first penetrate the structure through special Demolisher and then auto-spray the mixture of chemical Foam with water through Nozzle by auto-controlled CAFS(Compressed Air Foam System). Safety of Firefighters, Public as well as damage to property can be highly minimized due to rapid reaction in using DRFF



### Advanced Direct Water Spray Automatic Converting System



### Firefighting Operations Highlights





# Demolition and Rescue Fire-Fighting (DRFF) Vehicle JWF K210A



## Key Features highlights

- Firefighter personals safety is enhanced through Wireless Remote Controlled(WRC) operations allowing mobility and rapid reaction to ground situations
- Enhances safety from collapse or explosion risk when fighting highly combustible zones in larger SEZs, buildings or distribution warehouses
- Delivers highly efficient and rapid fire suppression by penetrating the roof and wall of various types of buildings(excluding Thick Concrete-mixed walls)
- Provision for different types of Electrical and Hydraulic attachments allows rapid, clearing of Debris including vehicles as well versatile rescue works
- Faster response to reach complex narrow fire originated spot

## Main Functionalities Testing (Certified & Approved)



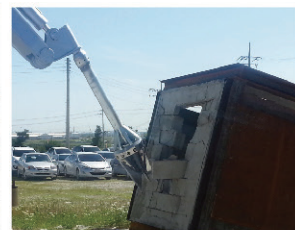
Fire Suppression



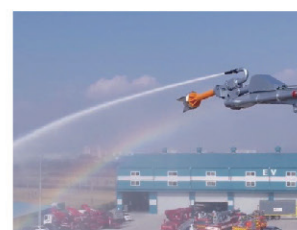
Demolition of Container



Penetration of Steel plate



Demolition of Concrete wall



Direct Water Jet



Water spraying



Foam spraying



Safety of Operation



## Special Features



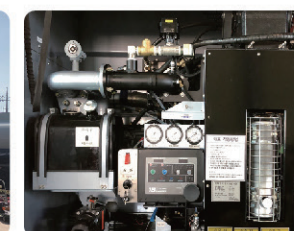
Tri-Axial Articulated  
Boom movement



Auxiliary Emergency Engine

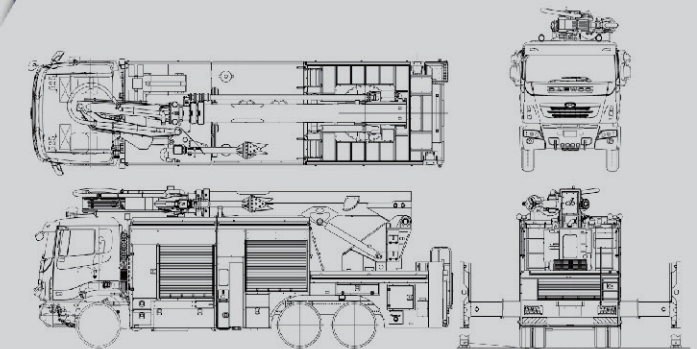


Automatic Self-defense  
Spray system

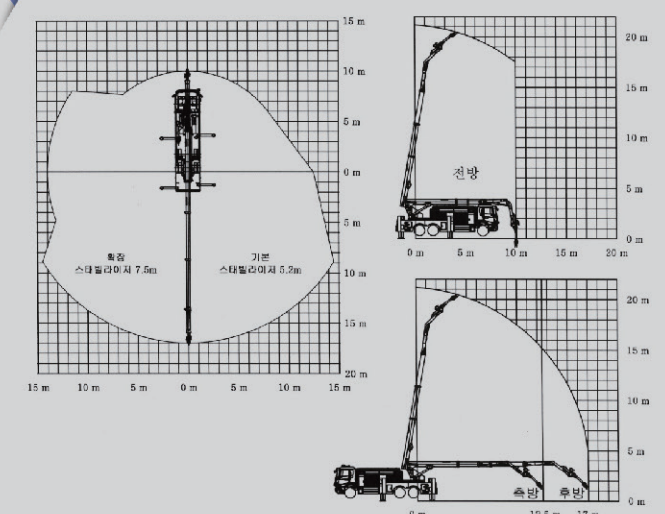


Compressed Air Foam System

## Product Assembly Drawing



## Maximum Working Area



## Main specifications

Overall Length / Height / Width	10,245 / 3,830 / 2,495 mm
Overall Weight (Configuration/GVW)	28,330 Kg
Water Spraying Demolisher Reach	21 m
Piercing Nozzle flow rate	4,500 ℓ /min
Power of demolition	Steel Plate(4 mm), Concrete(160 mm)
Fire Pump	5,300 ℓ /min
Water tank	2,000 ℓ
Foam tank (If CAFS provided)	400 ℓ
Outrigger	H - H Type (Single Push Auto leveling)
Extended width of Outrigger	5,200 mm ( Extended 7,500mm)
Main Boom	Max. Angle 80° (Auto-stop)
Articulating Boom rotation	110° (Left / Right)
Turn-table rotation	Continuous
Lifting capacity	Rear(1Ton) / Side(0.5Ton) / Closed condition(1.5Ton)
Control Systems	Hydraulic, Mechatronic(using Wireless Remote Control) Auxiliary Engine, Automatic Stowage(One-Push button)
CAF System	Available (Optional)
Direct Water Spraying (Jet~Nozzle)	Automatic switching



# JWF K320LS

## Firefighting aerial ladder vehicle Telescopic boom type

Optimized for suppression of fire in the higher building & lifesaving. Possible to work in the narrow area by applying telescopic boom type. Possible to save a life rapidly by reducing lifting time)

### Important points for Firefighting aerial ladder vehicle

- Possible to save a life at any direction because of 360° limited rotation of work platform
- Possible to work in case of outrigger's direct descending, minimized extension, individual extension
- Possible to operate individually outrigger's wireless remote control
- Minimized the maintenance & exchange period and acquired maximum safety by applying the semi-permanent boom chain
- Possible to enter rapidly into the narrow road by minimizing vehicle' length
- Possible to work at the maximum work radius & maximum height, compare with the other similar products
- Excellent efficiency of working in the narrow passage because of rear type work platform



### Key Features



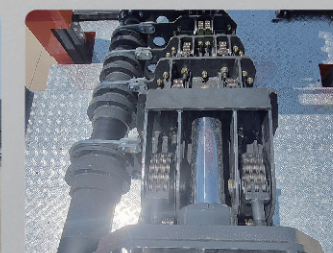
Several storage compartment



Extension of outrigger's 2 step



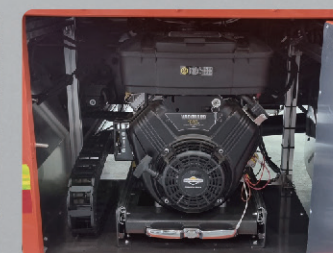
Rear sign board



All chain type boom



Wired & wireless integrated remote control



Emergency engine



Rear control panel



Narrow space low floor working



# Firefighting aerial ladder vehicle Telescopic boom type **JWF K320LS**



360° rotation of work platform



Side guide of supplementary  
foot hole of work platform



Work platform's rated load 400kg



Side working



Rear working

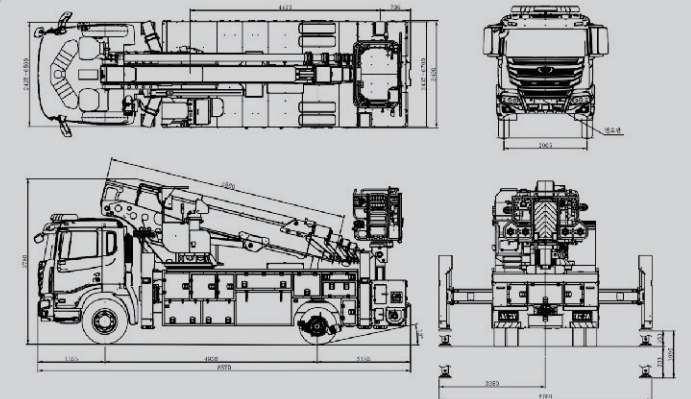


Maximum height 32m

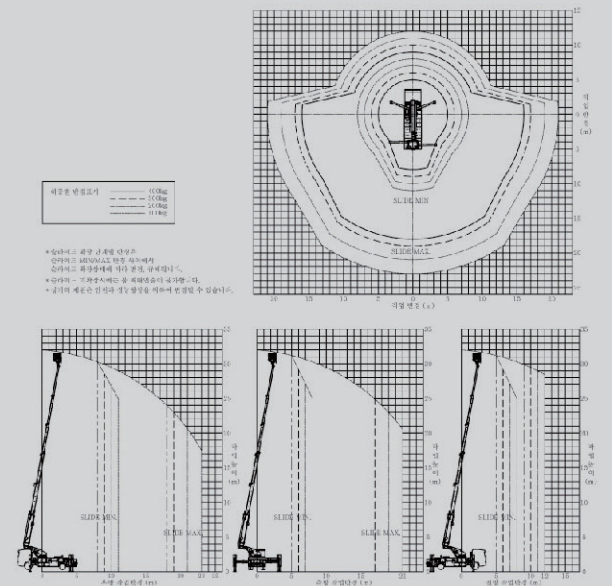


Maximum work radius 23m

## Product Assembly Drawing



## Maximum Working Area



## Main specifications

Overall length	8,670 mm
Overall height	3,780 mm
Overall width	2,490 mm
Vehicle gross weight	16,600 kg
Rated load	400 kg
Working height	32 m
Water spraying capability of water cannon	700 GPM
Platform's rotation	360° (limit)
Boom	(6 step interlocked, telescopic boom)
Turn table's rotation angle	360° (continuous)
Outrigger type	X-H Type(auto-leveilling)
Outriggers's extension width	6,700mm
Control system	Wired/wireless remote control



# JWF K190PLS

## Compact Boom Fire-Fighting Vehicle (5 ton)

It's a multipurpose Firefighting vehicle equipped with water pump and tank to simultaneously extinguish fire and perform rescue operations. It has excellent mobility in case of complex 7floor building located in a downtown area with narrow constrained passage. Multipurpose lifesaving Firefighting vehicle with enhanced rescue operations and firefighting efficiency

### Key Features highlights

- Multipurpose compact Firefighter with maximum capacity of Water and Foam tanks
- Rapid approach to narrow roads in the city center and excellent maneuverability enable simultaneous fire suppression and rescue operations
- Increased initial fire suppression capability through double supply and large capacity water tank
- Enhanced safety by applying automatic stowage type platform, automatically self-leveling, and easier entering into the Platform through secured rescue platform
- Automatic warning Light in Rescue Platform visually indicates and warns of self-leveling status of the platform
- Foldable type Rescue Platform allows easier driving as well smoother 360° (limited) rotation function to improve rescue efficiency
- Rescue Platform rates Capacity: 400Kg



### Key Features



Compact Medium Weight vehicle



Double cabin



Rear Cabin for Rescue Personnel



Rear Warning Lights(LED)



Automatic Water-Turret attached



Obstacle detection sensor



Auxiliary Emergency Engine



Special Sandwich PTO



Compact Boom  
Fire-Fighting  
Vehicle (5 ton)  
**JWF K190PLS**

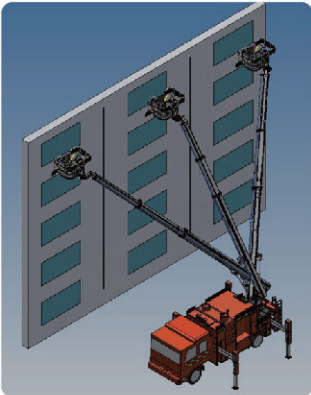


Key Features of Rescue Platform

- 360° rotation Rescue Platform (patented)
- Excellent workability and approach to blind spots (narrow alley, corner area)
- 360° rotation allows access to all sides and corners of the building
- Excellent installation for flexible operations and easier approach minimizing movements
- Maximized working approach by rotating the rescue platform 360°



Spacious Recue Platform (Max. 400Kg)



One position, wider reach



Master Central Control Station



Automatic water turret operations  
(Spray / Jet)



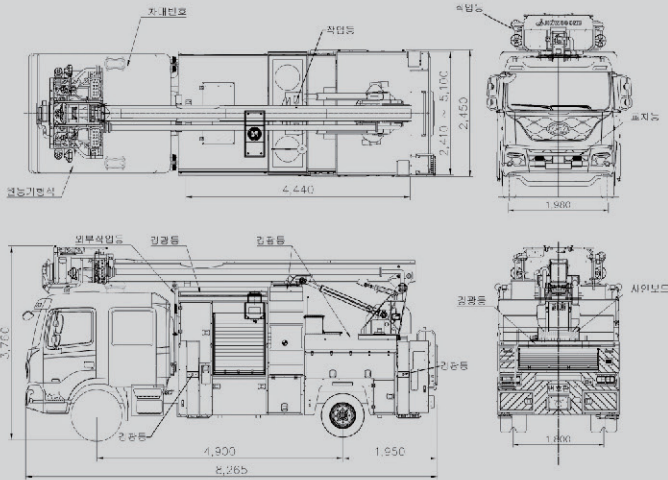
Side working



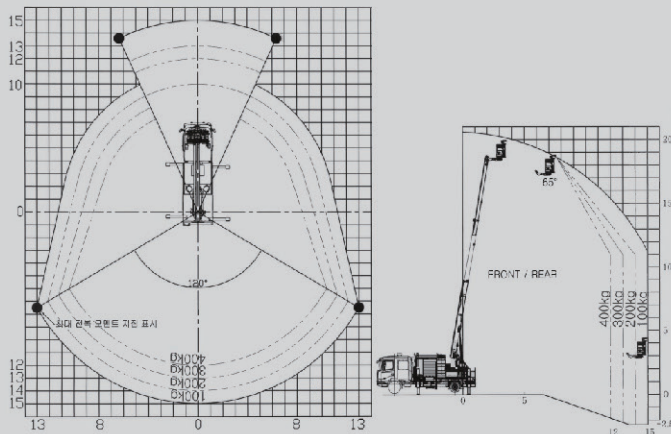
Rear working



Product Assembly Drawing



Maximum Working Area



Main specifications

Overall Length / Height / Width	8,265 / 3,760 / 2,450 mm
Rescue Platform capacity	400 Kg
Working Height	19 m
Working radius (max.)	15 m
Water tank	1,800 ℓ
Foam tank	100 ℓ
Automatic Water Turret	700 GPM (Spray ↔ Jet Auto change)
Rescue Platform	620 x 1,670 x 1,000 mm
Boom	Interlock 3-step Telescopic (Chains connected)
Turn table rotation	360 ° Continuous (Max. 720deg.)
Outrigger	H - H Type (Auto leveling option)
Extended width of outrigger	5,100 mm
Rescue Platform Control System	Electronic as well Portable Wireless Remote Control

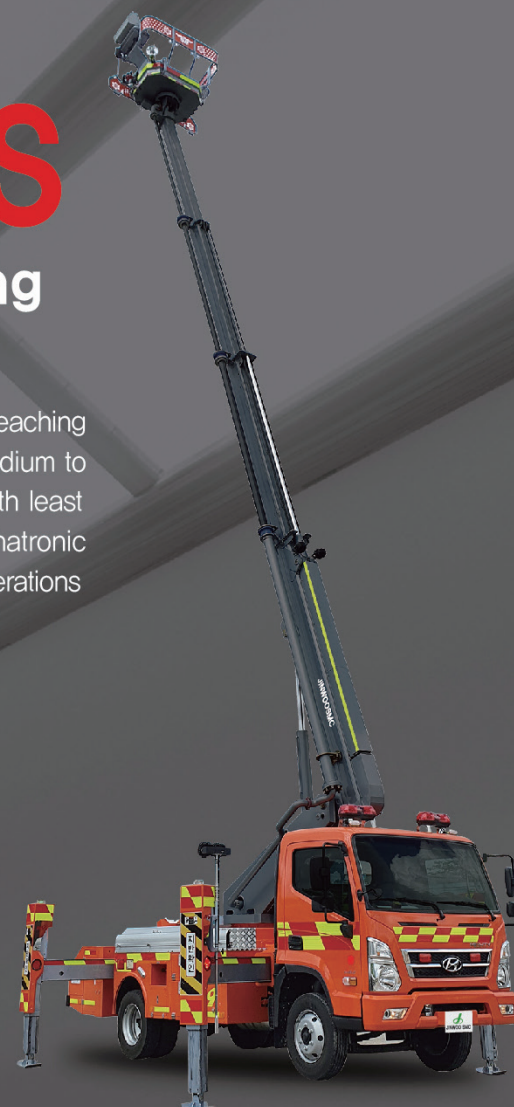


# JWF K180LS

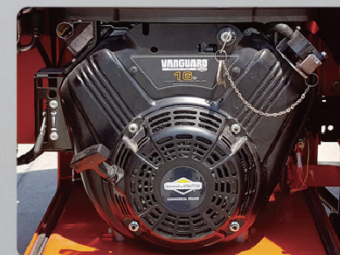
## Compact Boom Fire-Fighting Vehicle (3.5 ton)

Most compact (3.5tons) Boom Firefighting vehicle capable of reaching complex location through narrow passage where existing medium to large fire trucks cannot reach. Its Design-tested in market with least maintenance and service requirements due to minimal Mechatronic system and Chain system in 16 edged Booms for life-long operations without replacements

### Automatic Spray conversion system



### Safety Key Features



Emergency Auxiliary Engine



Rotation and Encoder detection



Automatic Self-defense Spray system



Obstacle detection sensor



Outrigger Jack detection sensor and Safety Check-Valve



Rear sign board



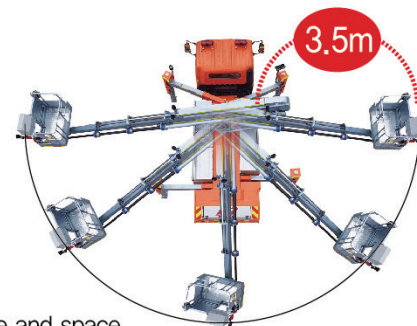


# Compact Boom Fire-Fighting Vehicle (3.5 ton) JWF K180LS



## Key Features highlights

- 360deg. Continuous rotation of Rescue Platform for easier maneuvering and positioning of Rescue platform for faster efficient life saving
- Rescue Platform located at the rear allows faster rescue operations in constrained space
- Maximum outreach is possible by avoiding obstacles at height as Rescue Platform can move upwards in narrow space



## Application field

- Faster reach to Multi-use facilities and traditional markets with complex passage and space
- Rapid access to Multiple complex and buildings of less than 7 floors wherein medium to heavy high-rise Firefighters cannot enter
- Older Downtown areas in crowded space—constrained shopping areas and market clusters having narrow approach space



Replace high-risk ladders



Low-rise building fire



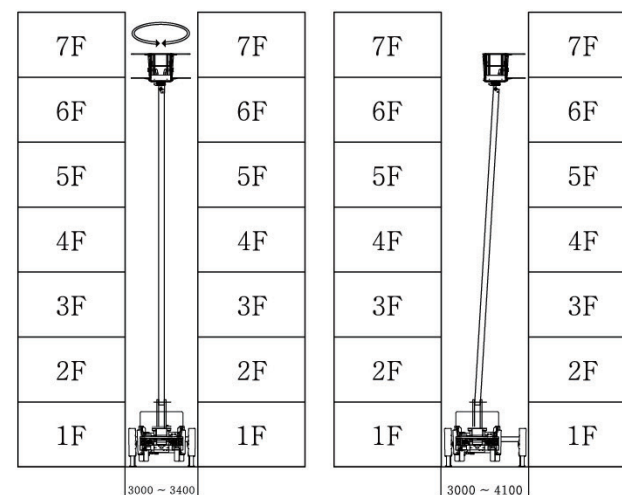
Removal of icicles



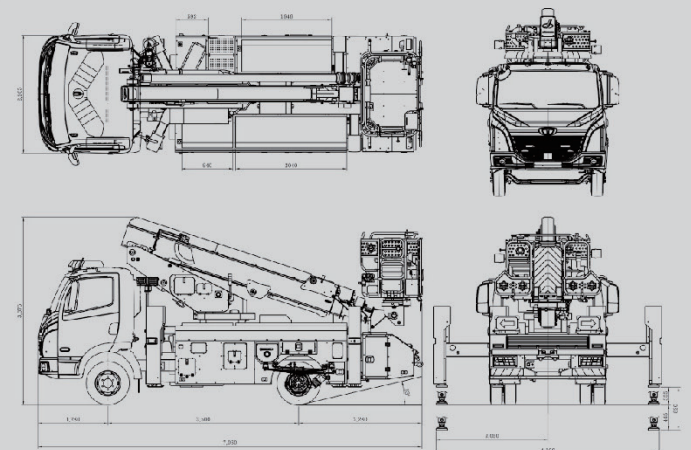
Remove honeycomb



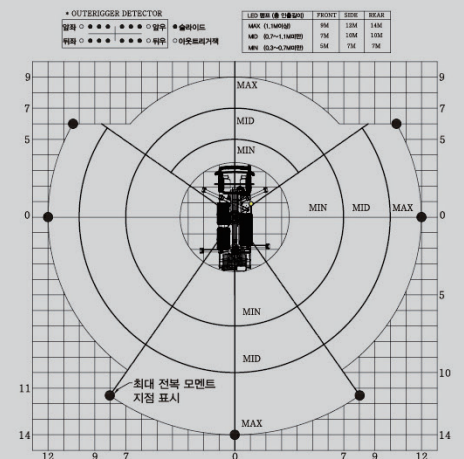
## Rescue Platform 360 deg. Rotation



## Product Assembly Drawing



## Maximum Working Area



## Main specifications

Overall Length / Height / Width	7,060 / 3,375 / 2,205 mm
Rescue Platform payload capacity	400 Kg
Rescue Reach Height	18 m
Automatic Water Turret	700 GPM (Spray (-) Jet Auto change)
Rescue Platform	1,070 x 1,560 x 1,100 mm
Rescue Platform rotation	360 ° (Limited)
Boom	Interlock 4-step Telescopic (Chains connected)
Turn-Table rotation	360 ° Continuous (Max. 720deg.)
Outrigger	X - H Type (Auto leveling option)
Extended width of Outrigger	4,450 mm
Rescue Platform Control System	Electronic as well Portable Wireless Remote Control



# JWF K150

## 5 ton firefighting vehicle for suppression of fire especially for electric passenger car

Specialized firefighting vehicle for suppression of fire of electric passenger car by direct shooting water inside car & it's battery after lifting car by crusher and piercing nozzle

### Main points for 5 ton firefighting vehicle for suppression of fire especially for electric passenger car

- Possible to shoot directly inside car by attaching piercing type destruction tip
- Possible to shoot water in the course of vehicle's driving by attaching auto cannon in the upper/lower area of truck cabin
- Attached auto-converting system for direct shooting and spraying
- Acquired safety for firefighting man by wired & wireless integrated remote control
- Possible to penetrate 2mm steel plate by destruction tip located in the top of nozzle



### Key Features



Front water cannon in the upper area of truck cabin



Front water cannon in the lower area of truck cabin



Destruction tip



Spraying system of vehicle



Invertor



Emergency engine



Rear control panel



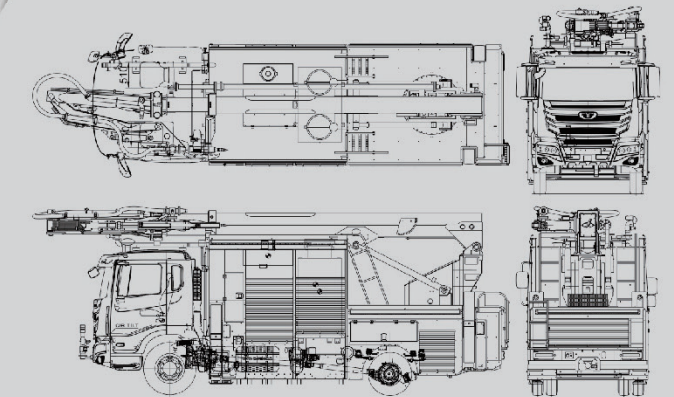
Rear sign board



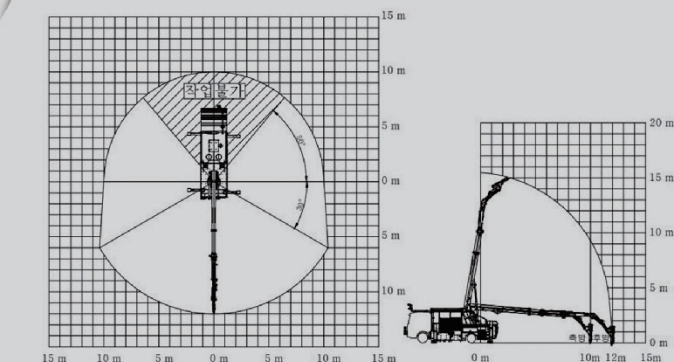
5 ton firefighting vehicle for  
suppression of fire especially  
for electric passenger car  
**JWF K150**



## Product Assembly Drawing

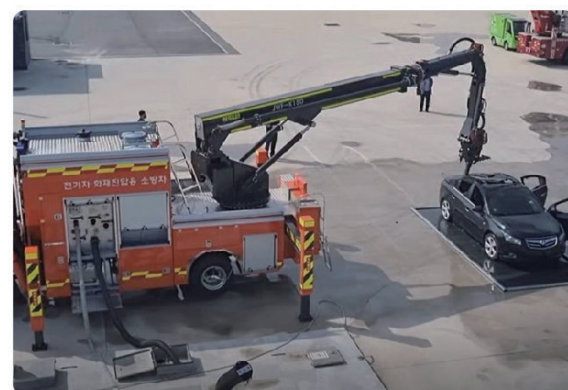


## Maximum Working Area



## Main specifications

Overall length	8,500 mm
Overall height	3,900 mm
Overall width	2,480 mm
Wheel base	4,430 mm
Horse power	320 hp
Working height	15 m
Front water cannon	2,500 LPM
Water tank capacity	1,800 L
Foam tank capacity	100 L
Boom type	Telescopic 2 step + articulating 1 step
Rotation angle of articulating boom	Left / right 110 °
Outrigger	H Type(Auto-levelling)
Nozzle	Spraying & piercing
Destruction capacity	Steel plate 2 mm
Turn table rotation	360 ° continuous
Remote control	Wired & wireless integrated



Perforating roof by the piercing destruction tip



Suppression of fire for vehicle



Direct Water Shooting



Multi- purpose water cannon



Connective movement by remote control  
3 kinds of direct water shooting & spraying



Water Spraying



# JWF K010

## 1 ton firefighting vehicle for suppression of fire especially for electric passenger car

Possible to suppress fire at the first stage of fire for the electric car in the narrow area like as under-ground parking area which is very difficult to enter because of restriction of height by attaching traction device & firefighting pump

### Main points for 1 ton firefighting vehicle for suppression of fire especially for electric passenger car

- Attached spraying system in the traction device which is possible to spray into the battery located in the lower part of car
- Attached spraying system of vehicle
- Attached self- air suspension of vehicle
- Possible to tow away in spite of damaging wheel and diagonal type

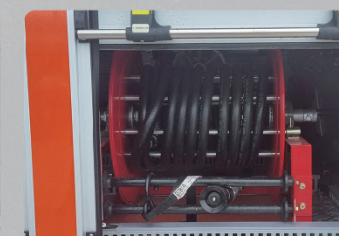
### Verification experiment



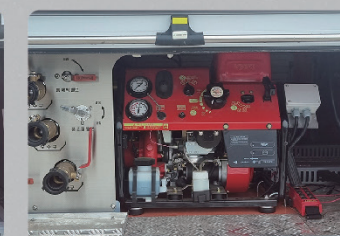
### Key Features



Supplementary wheel



Firefighting hose



Firefighting pump



Spraying system of traction device



Traction after damaging wheel

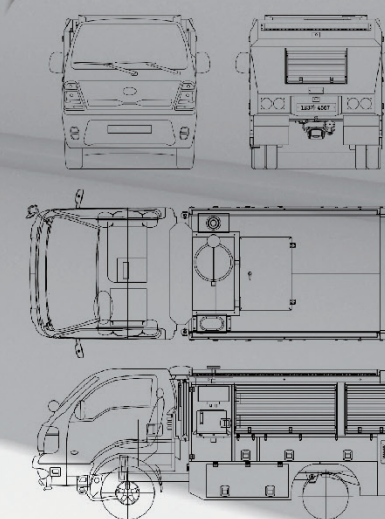


Traction in diagonal type



Spraying system of vehicle

### Product Assembly Drawing



### Main specifications

Overall length	5,050 mm
Overall height	1,830 mm
Overall width	2,080 mm
Passengers	2 persons
Firefighting pump	Moving pump 12-2(16ps) Using pressure : 5kg/cm Maximum pressure : 7kg/cm Using hydraulic flow : 550L/min
Water tank capacity	300 L
Foam tank capacity	20 L
Traction device	500 kg (Both manual & wireless )
Winch	2,700 kg (Both manual & wireless )
Spraying system of vehicle	Spraying on the left, right, rear part of vehicle



# JWF K021EAR

## Electrically driven Armored Robot Fire Truck (6 tons)

In the event of a large-scale disaster takes place in large building or industrial plant facility such as hazardous gas leakage, structure collapse, explosion, etc.; fire extinguishing and rescuing are possible in situations where firefighting personnel approach is impossible. This Electric Armored Robot Firefighter is equipped with a robotic arm which can demolish the obstructions and pass through the debris, especially in disaster sites during catastrophic events such as Earthquake, Typhoon, Tsunami, Building collapse etc



### Main specifications

Overall Length / Height / Width	5,640 / 2,000 / 2,200 mm
Max. Occupancy	4 personnel
In-cab air purifying capacity	5 m <sup>3</sup> / min
Max speed in non-slope pathways	10 km/h
Max. Climbing Angle	35 / 10 °
Safe Climbing Height	0.5 m
Turning radius	360 ° (Central)
Operating hour	1 hour
Thermal Resistance	500 °C
Extinguish Capacity	900 ℓ / min
Robotic Arm shock grade	39.5 grade
Robotic Arm gravity	500 Kg · f
Performance parameters	3-Axial versatile multiple hydraulics Attachments (5 types)



# JWF K013ECL

## Miniature Electric-driven Fire Engine (0.8 ton)

Eco-friendly ultra-compact Electric battery driven compact Fire vehicle that is suitable for fire prevention patrols without fumes that can quickly respond to fires in narrow paths in; old towns where access is difficult, near schools, underground parking lots, Islands, remote areas etc



### Key Features highlights

- Equipped with special module for fire suppression
- Fire hose automatic type reel device installed in sliding-type shelf structure
- Vehicle safety devices such as ABS, rear camera, power steering, airbag, etc. provided
- Electronic shifting option provided.
- High-strength/ultra-light base frame provided to strengthen robustness of the product



### Main specifications

Overall Length / Height / Width	3,600 / 1,915 / 1,400 mm
Max occupancy	2 persons
Max Speed	80 Km/h
Climbing ability	25 %
Charging time to full SOC	6 ~ 8 hour
Battery capacity	13 kwh
Motor Output	15 kw
Suspension type	Wishbone / Torsion beam
Water tank / Foam tank	300 / 20 ℓ
Firefighting pump flow rate	650 @ 0.5 ℓ / min @MPa 400 @ 0.7 ℓ / min @MPa
Firefighting pump output	8.6