

Body repairing and painting

# **ALTIA Body Repair Paint System**

**ALTIA Co., Ltd.**

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- Please note that specifications are subject to change without notice.
- Please contact your local sales company or Altia branch for ordering and consultation.
- Altia Homepage: [www.altia.co.jp](http://www.altia.co.jp)



**ALTIA Co., Ltd.**

In the context of the body repair market, there is a growing call for the modernization of equipment.

Challenges facing the body equipment industry are as follows:

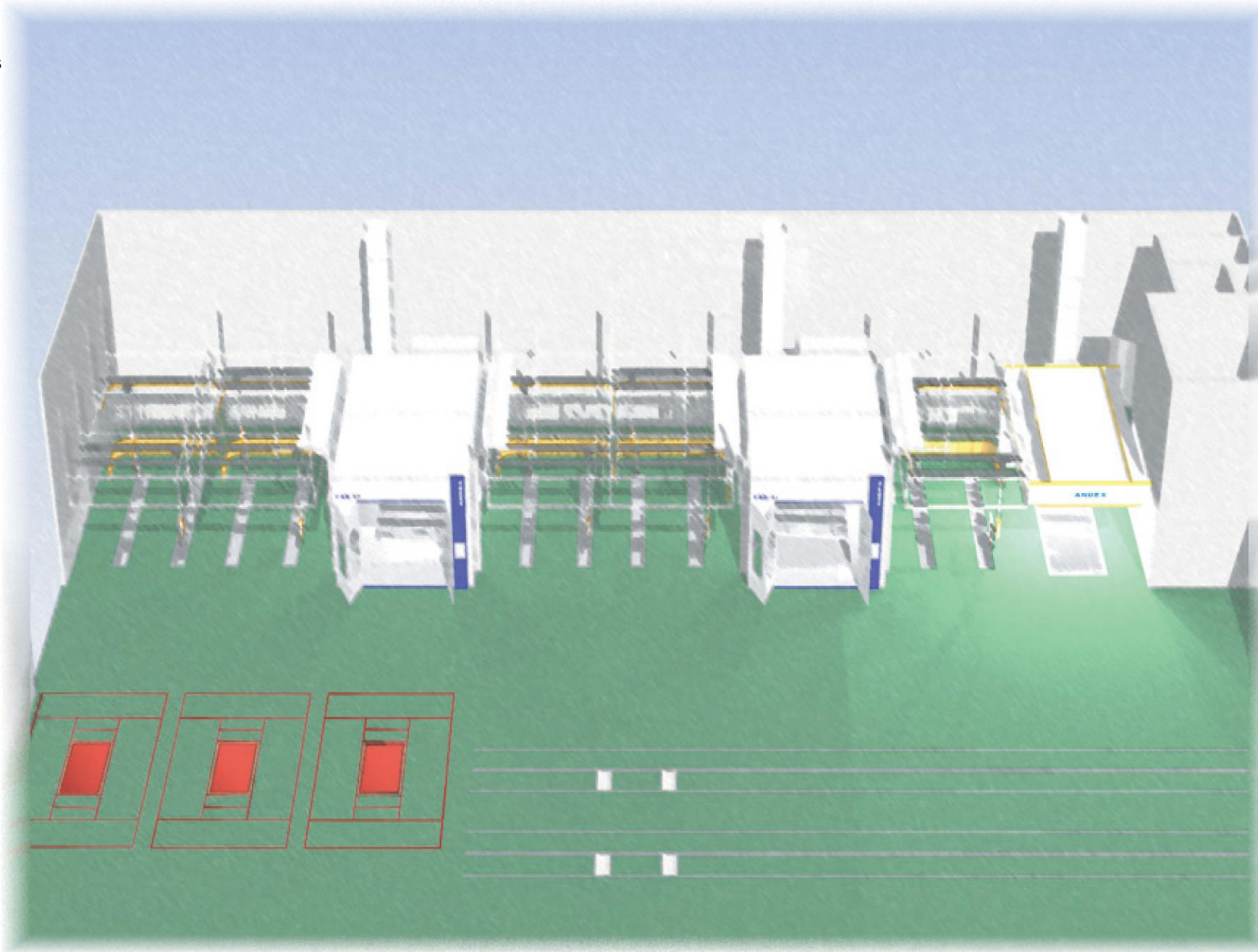
- Introduction of new technology as vehicles become more technologically advanced
- Creating an attractive workplace with a clean working environment
- Securing human resources to support the modernization of technology
- Modernization of facilities to produce high quality and high productivity

For these purposes, Altia will provide you with the following services:

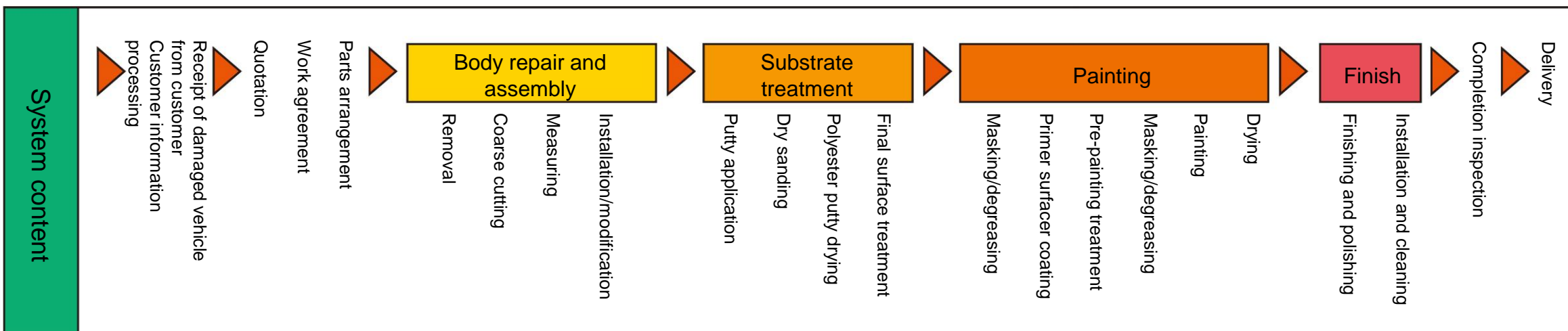
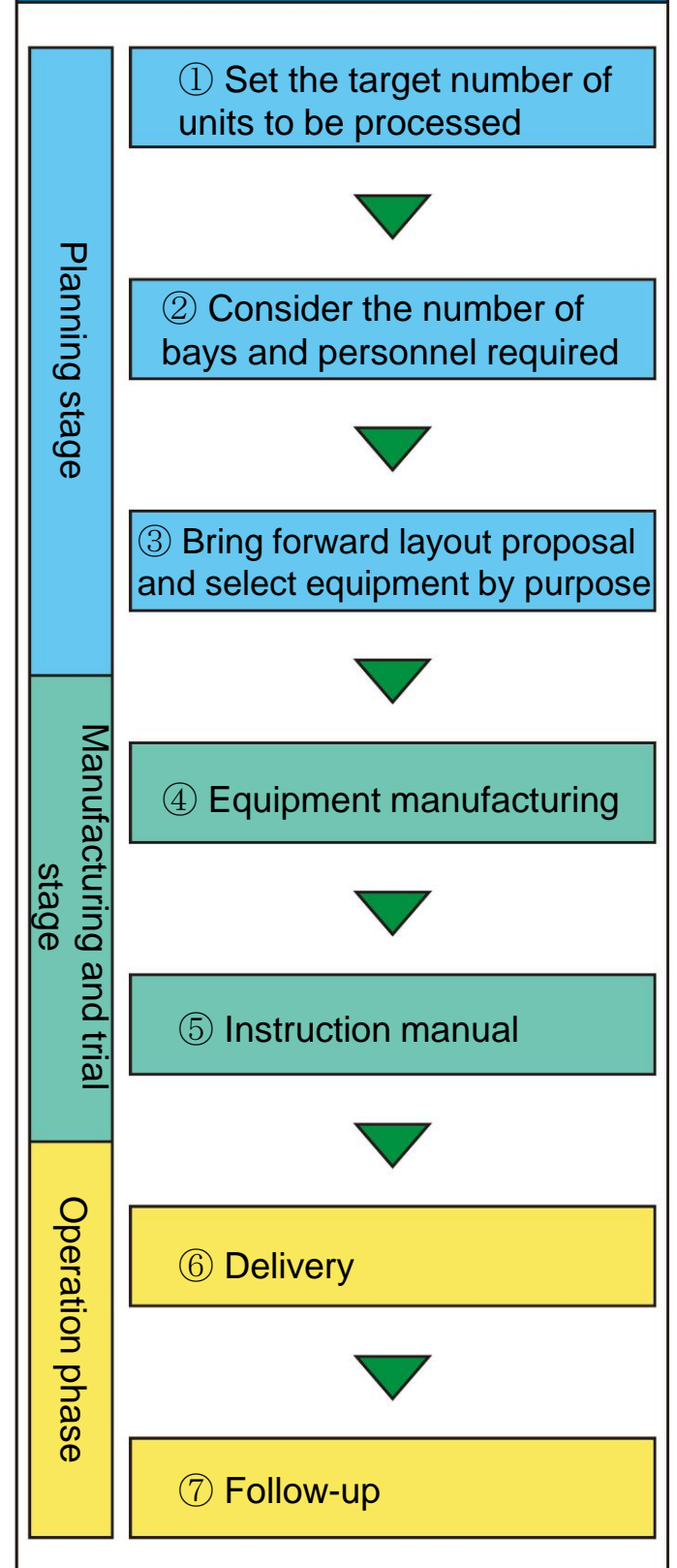
- State-of-the-art equipment
- Equipment that pursues high quality
- Systems that strive for high production efficiency
- Space-efficient layout
- Comfortable working environment and workplace

These services will be provided based on the needs of body repair shops.

Altia Body Repairing and Painting System will realize customer satisfaction, employee satisfaction, safe operation and high management efficiency.



## Introduction procedure



# Example of plant layout

In The Case of **150**



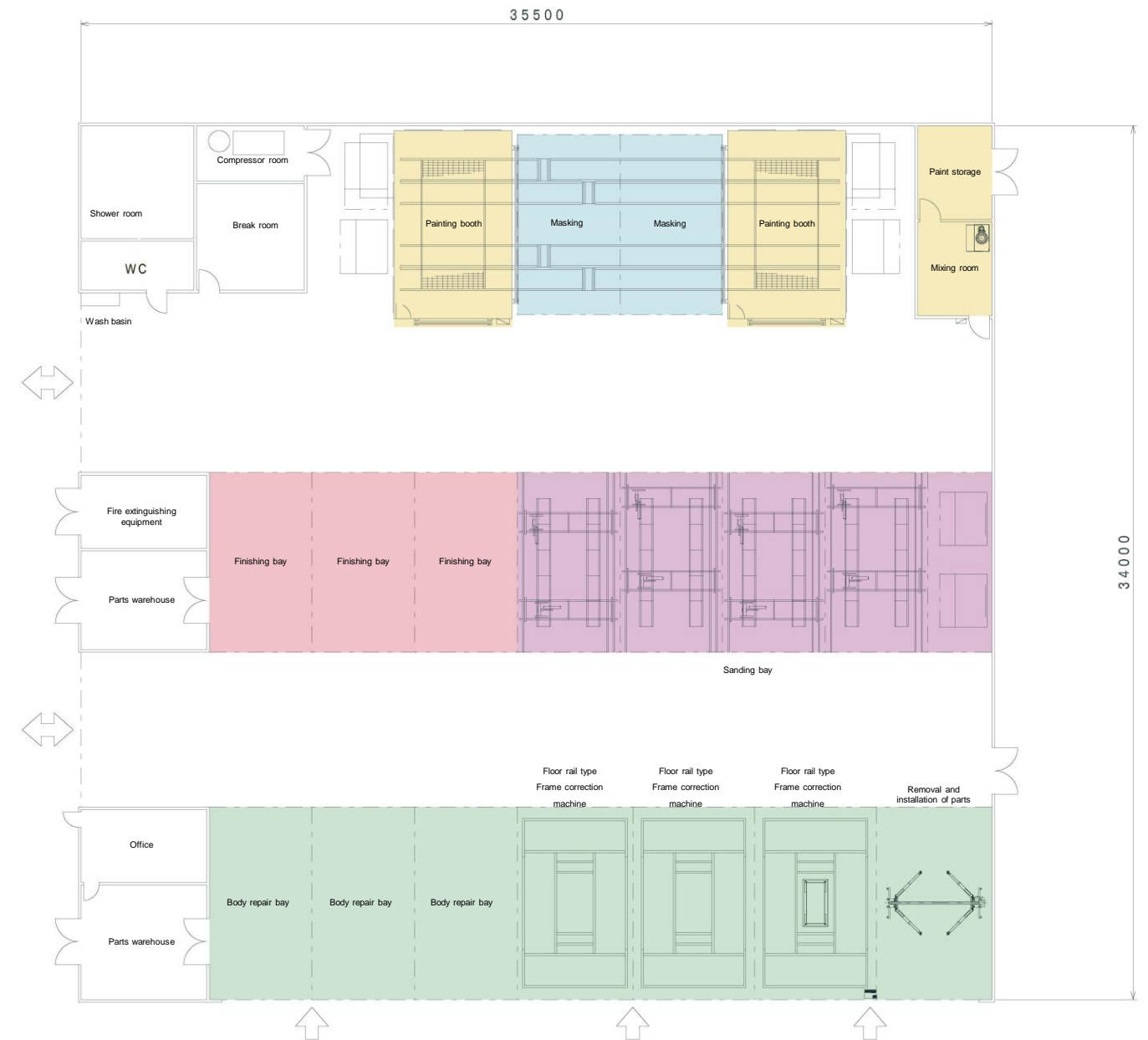
Example of number of units to be repaired

- Equivalent to minor to severe damage
- About 150 units

Work process	Work content	Number of work bays	Number of personnel required
Part removal and work related to body repair	Part removal, frame correction, panel replacement, hammering, cleaning, putty application	5	4
Sanding	Polishing of putty-applied and primer surfacer-applied areas	3	2
Masking	Masking	1	1
Painting	Painting and drying	2	2
Installation of repaired parts	Polishing the parts after drying and then installing them onto the vehicle	3	3
Total		14	12

# Example of plant layout

In The Case of **200**



Example of number of units to be repaired

- Equivalent to minor to severe damage
- About 200 units

Work process	Work content	Number of work bays	Number of personnel required
Part removal and work related to body repair	Part removal, frame correction, panel replacement, hammering, cleaning, putty application	7	5
Sanding	Polishing of putty-applied and primer surfacer-applied areas	4	3
Masking	Masking	2	2
Painting	Painting and drying	2	2
Installation of repaired parts	Polishing the parts after drying and then installing them onto the vehicle	3	3
Total		18	15

# Example of plant layout

In The Case of **50**

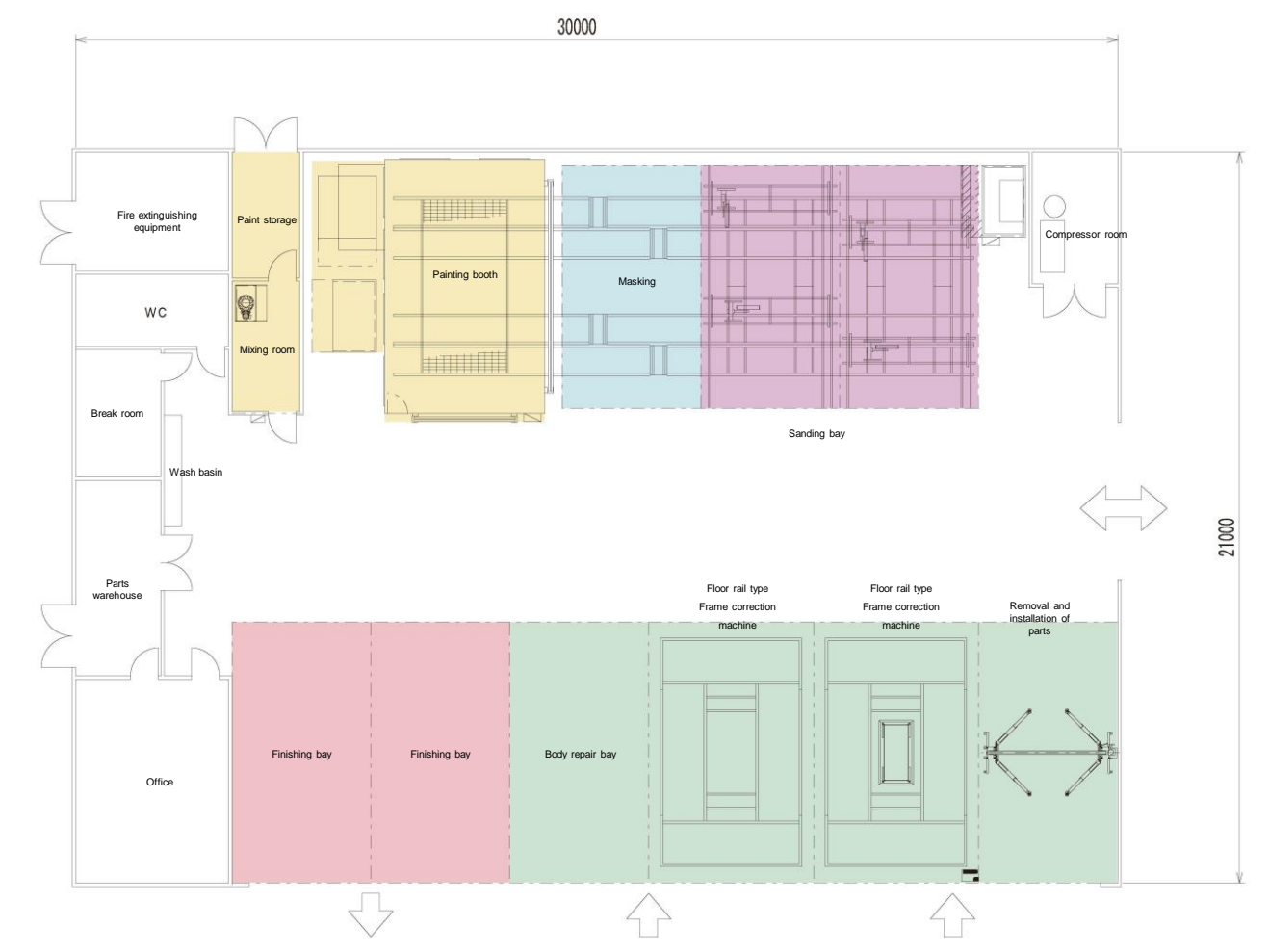


Example of number of units to be repaired  
 • Equivalent to minor to medium damage  
 • About 50 units

Work process	Work content	Number of work bays	Number of personnel required
Part removal and work related to body repair	Part removal, frame correction, panel replacement, hammering, cleaning, putty application	2	1
Sanding	Polishing of putty-applied and primer surfacer-applied areas	1	1
Masking	Masking	1	1
Painting	Painting and drying	1	1
Installation of repaired parts	Polishing the parts after drying and then installing them onto the vehicle	1	1
Total		6	5

# Example of plant layout

In The Case of **100**



Example of number of units to be repaired  
 • Equivalent to minor to medium damage  
 • About 100 units

Work process	Work content	Number of work bays	Number of personnel required
Part removal and work related to body repair	Part removal, frame correction, panel replacement, hammering, cleaning, putty application	4	3
Sanding	Polishing of putty-applied and primer surfacer-applied areas	2	1
Masking	Masking	1	1
Painting	Painting and drying	1	1
Installation of repaired parts	Polishing the parts after drying and then installing them onto the vehicle	1	2
Total		13	10

# Frame correction machine

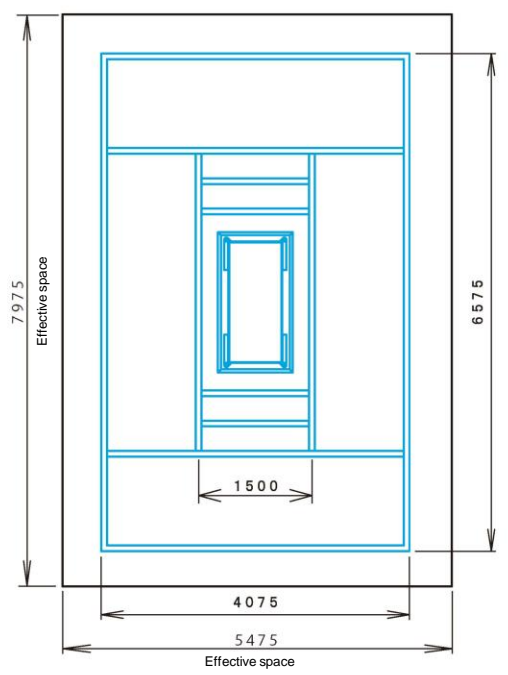
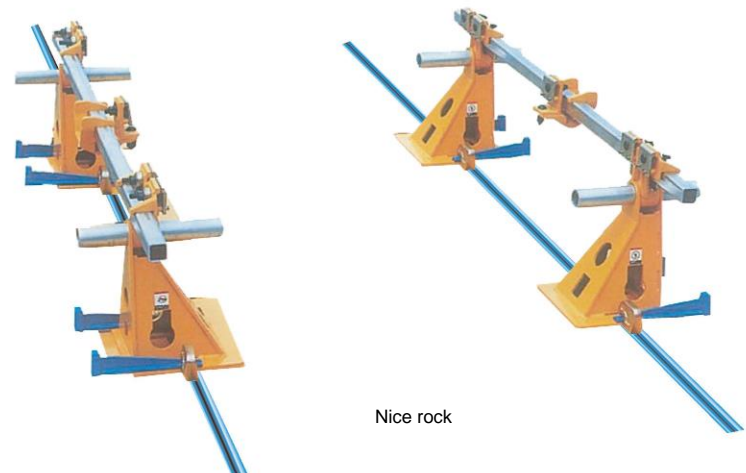
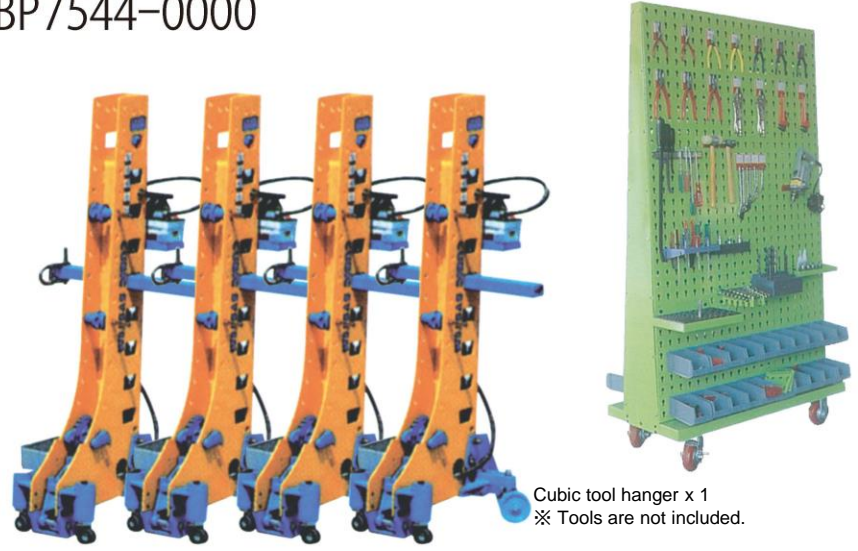
[For severe damage]... Damage spreads to the vicinity of the cabin

# Frame correction machine

[For severe damage]... Damage spreads to the vicinity of the cabin

## Cubic Rail System

BP7544-0000



No.	Product name	Quantity
1	Cubic rail	1
2	Nice lock for rail	1
3	Cubic lift	1
4	Cubic tower 10t	4
5	Ricky III 1.5t	2
6	Chain 3m	4
7	Chain hook A	4
8	Chain hook B	4
9	Ring wire	1
10	Strut chain	1
11	New mini clamp	2
12	Free angle clamp	2
13	All-angle clamp	2
14	Secondary clamp B	4
15	Frame clamp	4
16	Hole plate	1
17	Roof hanger S	1
18	Conveyor gage	1
19	Cubic tool hanger	1

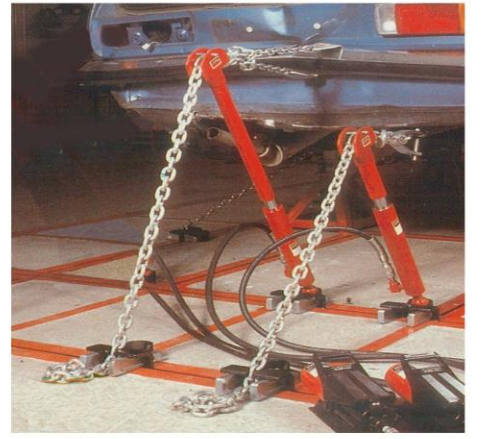
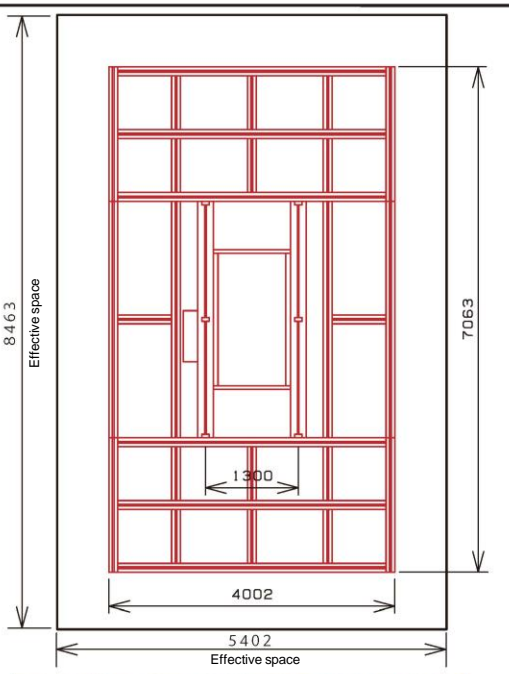
**[Features]**  
The cubic rail system allows you to pull from any direction (within 360°). In addition, when there is no correction work, the floor surface is flat, making it possible to make the most of the plant space for sanding work as well as maintenance work in combination with a lift.  
Cubic Rail is an one-piece structure made of hot rolled section steel that is unparalleled in the world, with high technical capabilities, high quality, and high strength jointly developed with Nippon Steel Corporation.

●Nice rock  
By eliminating the left and right connecting pipes while maintaining the fixing strength, the efficiency of the chassis-related work is improved.

●Cubic tower  
It is an eternal theme that all body technicians want the newly developed tower to work "faster and more precisely".

## New Doctor System

BP7544-0000



No.	Product name	Quantity
1	Tower frame (wide)	1
2	Winning anchor	1
3	Super tower	1
4	Air pump	2
5	10t ram 25cm	2
6	Ramfoot chain anchor	6
7	Wedge	12
8	Chain lock head	2
9	12.5cm tube	2
10	25cm tube	2
11	45cm tube	2
12	75cm tube	2
13	9' chain with 1 hook	2
14	7' chain with 1 hook	4
15	Cam clamp	1
16	4.4cm clamp	2
17	Yoke and pin	2
18	Angle clamp	2
19	Dozer hook	1
20	Wedge clamp	2
21	G clamp	1
22	Long nose clamp	1
23	Baby box clamp	1
24	Stand B	2

**[Features]**  
The Doctor System enables pulling from any direction (within 360°). In addition, when there is no correction work, the floor surface is flat, making it possible to make the most of the plant space for sanding work as well as maintenance work in combination with a lift.

●Winning anchor  
Since lifting is possible while the vehicle is clamped to the lift, parts can be removed or installed and welding can be carried out in a comfortable posture. When pulling, the lift is lowered to the floor and fixed perfectly with a single wedge.

●Super tower  
Equipped with 2 independent cylinders in one tower, it is possible to pull two near points at the same time. The pull height is steplessly adjustable and has features that are not available elsewhere.

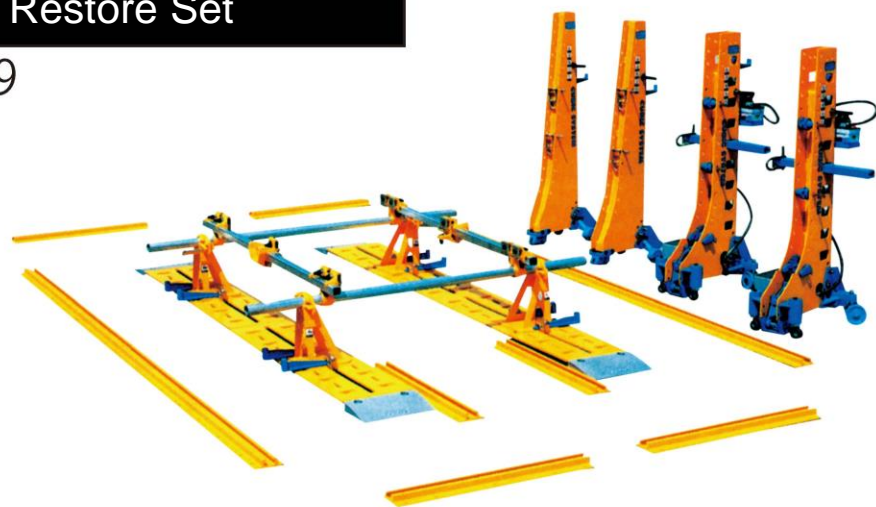
●Vector pulling  
The vector pulling can be pulled in various ways in combination with attachments.

# Frame correction machine

[For medium damage]... Damage spreads to the vicinity of the suspension

## Body Restore Set

BP7546-0119



No.	Product name	Quantity	No.	Product name	Quantity
1	Best lock	1	11	Chain hook B	5
2	Cubic tower 10t	2	12	Ring wire	1
3	Cubic mini tower	2	13	Strut chain	1
4	Open rail 1m	6	14	Mini clamp	2
5	Open rail 2m	4	15	Free angle clamp	2
6	Bridge pipe	1	16	All-angle clamp	2
7	Compare gage	1	17	Side clamp B	4
8	Ricky III 1.5t	2	18	Frame clamp	4
9	Chain 1.5m	4	19	Hole plate	1
10	Chain hook A	5	20	W impact kit	1

**[Features]**

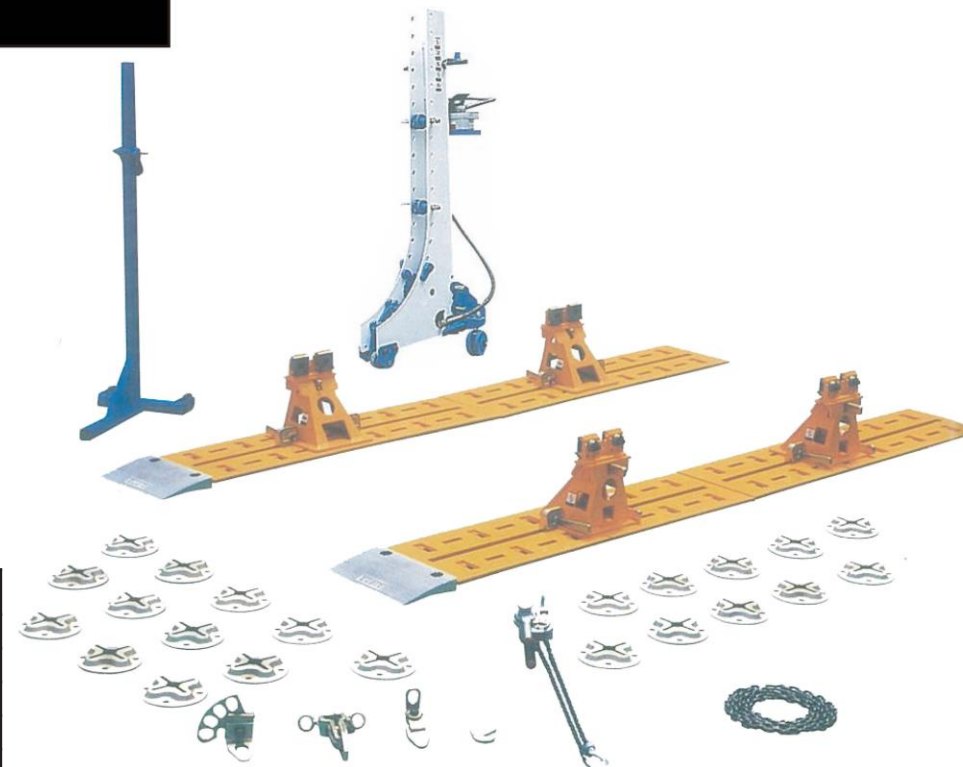
Firmly secures the vehicle with the nice lock. Cubic tower for heavy pulling and easy tower for support. Since all rails are anchored, the installation will be completed in one day.

# Frame correction machine

[For minor damage accident] ... Damage does not extend to the frame

## Quick Make Set

BP7546-0121



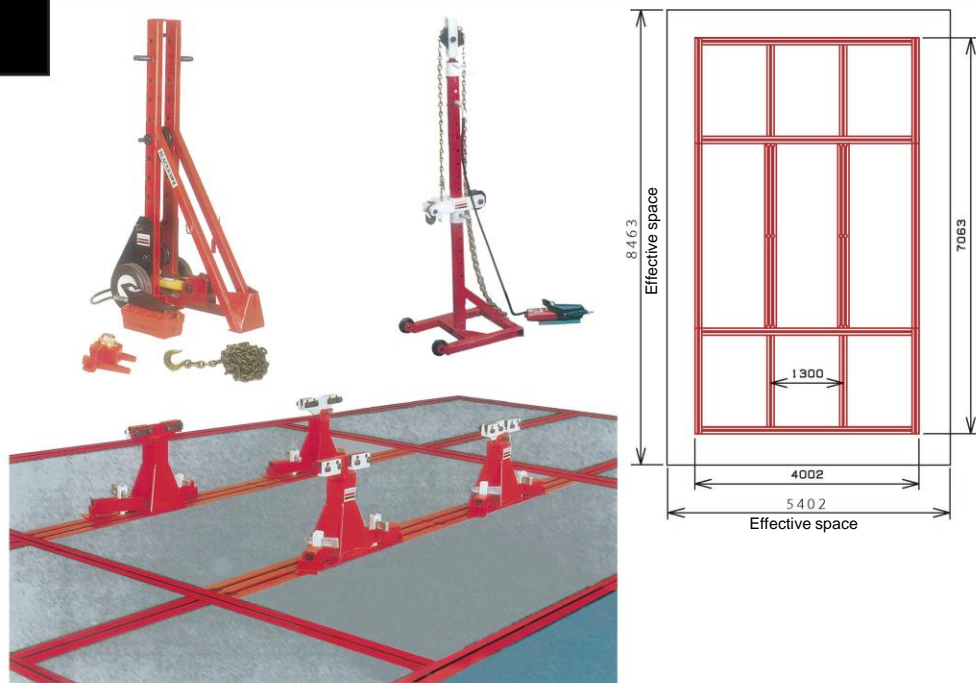
No.	Product name	Quantity
1	Quick lock	1
2	Cubic strong tower	1
3	Cubic easy tower	1
4	Auto hook	22
5	Ricky II (0.75t)	1
6	Chain hook A	1
7	Chain 3m	1
8	Mini clamp	1
9	Free angle clamp	1
10	Side clamp B	1

**[Features]**

We provide the minimum set you need at a low price. Installation can be completed in one day because all anchors have been fastened in advance.

## Mighty Tower Set

BP7539-0000



No.	Product name	Quantity
1	Standard frame	1
2	Master lock (embedded)	1
3	For mighty tower rail	1
4	New power stand	1
5	Ramfoot chain anchor	2
6	Wedge	4
7	7' chain with 1 hook	2
8	Handy hook	2
9	12' chain	1
10	3 mm chain (8mm) without hook	1
11	Long nose clamp	1
12	G clamp	1
13	Baby box clamp	1
14	Junior clamp	1
15	Wedge clamp	2

**[Features]**

The Mighty Tower Set allows you to pull from any direction (within 360°). The master lock utilizes a garage jack and can be easily set to firmly secure the vehicle. The Mighty Tower has large wheels so you can easily move it without getting caught in rail grooves or gratings.

## New Power Stand Set

BP7538-0000



No.	Product name	Quantity
1	Master lock II	1
2	New power stand	1
3	Anchor plate set	9
4	12' chain	2
5	Handy hook	1
6	Multi-angle clamp	1
7	Dynamo-W	1
8	Long nose clamp	1
9	3 mm chain (8mm) without hook	1
10	Safety cable	1

**[Features]**

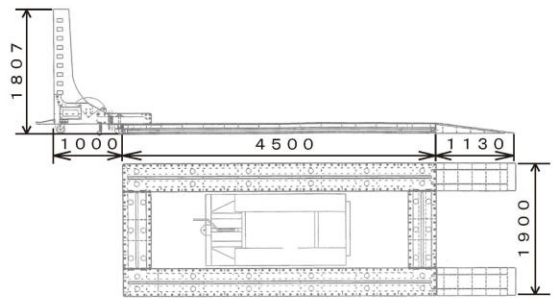
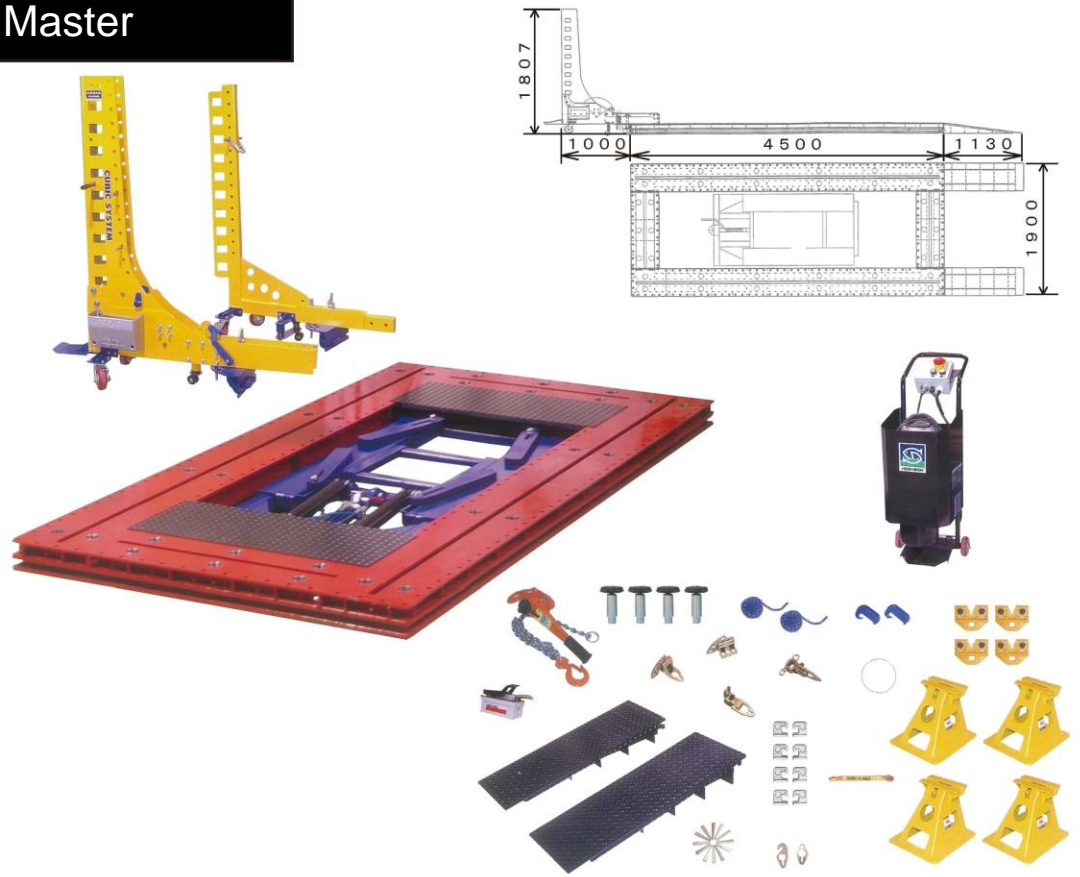
We provide the minimum set you need at a low price. Installation can be completed in one day because all anchors have been fastened in advance.

# Frame correction machine [For minor damage accident] ... Damage does not extend to the frame

## Cubic Square Master

BP7544-1000

No.	Product name	Quantity
1	Square Master 10t tower	1
2	Hydraulic pump	1
3	Square Master mini tower	1
4	Square Master base	1
5	Square Master 2.7t lift	1
6	Lift pump set	1
7	Square Master lift adapter	4
8	Slope	1 set
9	Body clamp	4
10	Stand	4
11	Stand fixed block	8
12	Wedge	12
13	Mini clamp	1
14	Free angle clamp	1
15	All-angle clamp	1
16	Side clamp B	1
17	3m chain	2
18	Chain hook A	1
19	Chain hook B	1
20	Chain hook	2
21	Lever block 1.5t	1
22	High belt	1
23	Ring wire	1



**[Features]**  
The built-in lift makes it easier to set up the vehicle, and the tower, designed with the stress-free concept, allows for smooth correction work.

## Sanding System

The sanding system protects the environment in the plant while protecting the health of the workers. Altia sanding system is available in various sizes and budgets.



1. Open



2. Curtain



3. Partition

By combining the sanding system with the rail bay of frame correction machine, it is possible to efficiently perform everything from body repairing to sanding.



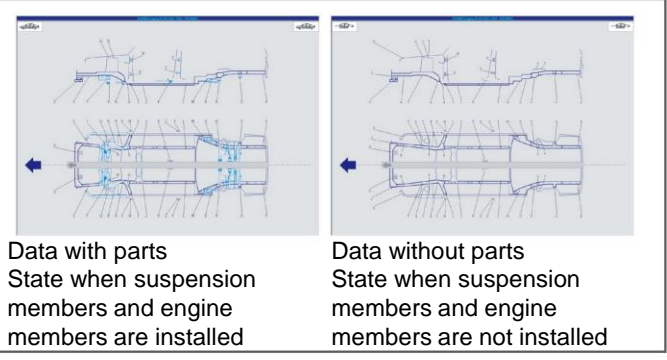
A rust-resistant galvanized steel damper is used. Since only the part to be used can be opened and closed without removing the grating, a high-efficiency dust extraction force can be obtained.



Unit

## Frame measuring machine - SHARK MILLENIUM

BP8501-0000

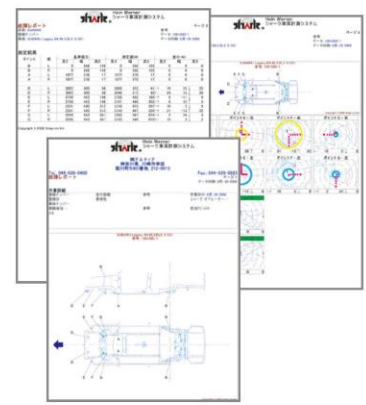


Data with parts  
State when suspension members and engine members are installed

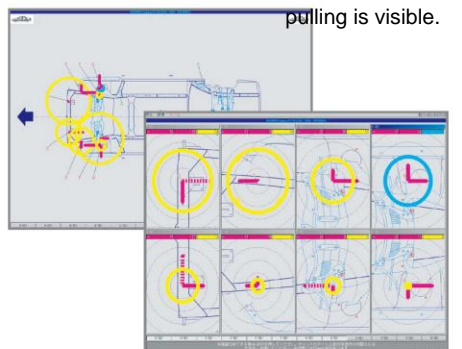
Data without parts  
State when suspension members and engine members are not installed



Used in conjunction with a frame correction machine. The movement of the frame when pulling is visible.



Output of measurement results



The front, back, left and right are indicated by vectors, while the top and bottom are indicated by yellow and blue circles. The display is updated every 3 seconds.



- [Features]**
- SHARK performs three-dimensional measurements in real time.
  - There is no need to select a frame correction machine to be used. Measurement is possible as long as there is enough space to place the measuring beam.
  - Easy setup. All you need to do is put the measuring beam under the vehicle. Leveling and centering are not required.
  - Multi-point simultaneous measurement possible. Up to 8 points can be measured simultaneously as standard, and up to 12 points can be measured as option.
  - Quality assurance is a professional attestation. The measurement result can be used as an accuracy certificate, which is useful as a report for the customer's insurance company.
  - Vehicle data is updated four times a year (for a fee)... about 70 units. There are two types of SHARK data for each vehicle, one with suspension and one without.
  - We also have a content-packed homepage. The data of the domestic new model car will be posted on the SHARK support site along with provisional data in advance.

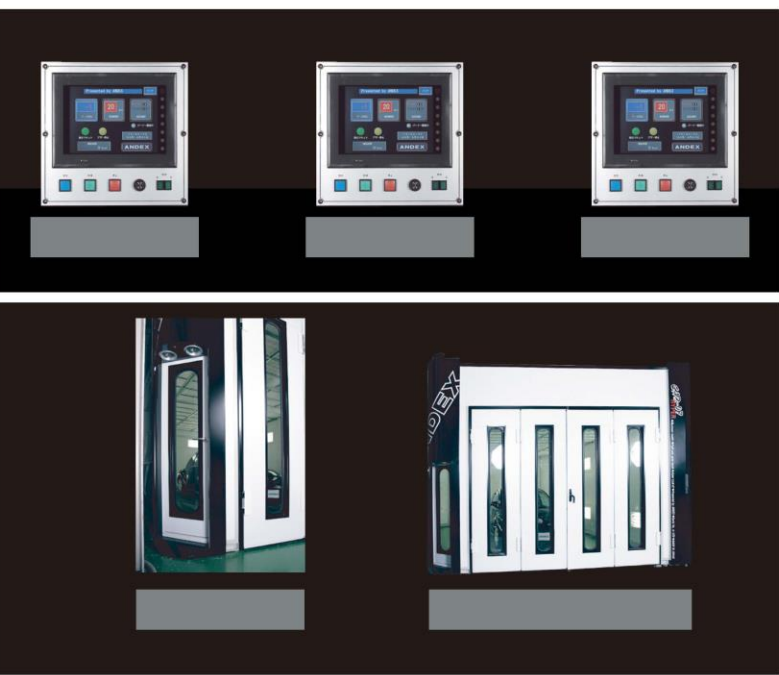
『CAB-07Hyper』

- The best series pursuing high performance, ease of use, and optimal design.
- A touch panel is used for operation, and the operating status and operating history are displayed.
  - Corner panels are not decorative. Storage box, transformer box and socket box are loaded with features.



『AERIA-70』

A high-spec standard model that combines airflow, quietness, and maintainability at a high level



Specification	
Model	CAB-07 Hyper
Ventilation method	Push-pull uniform flow triggering device
Outside dimensions of booth	4,600 (W) x 7,300 (L) x 3,475 (H) mm
Effective dimensions in the booth	4,530 (W) x 7,230 (L) x 2,700 (H) mm
Front entrance/exit for vehicle	3,200 (W) x 2,725 (H) mm, with 4 panels operable
Entrance/exit for operator	505 (W) x 1,850 (H) mm (in front corner)
Lighting	Air shower blower 0.4KW above the small door Lower section: 40W x 4-lamp type x 10 units Upper section: 40W x 4-lamp type x 10 units
Main body panel	3,200W x 20 units in total
Primary filter of air supply	35mm-thick insulated sandwich panel (galvanized base-color steel plate 0.8t)
Secondary (ceiling) filter of air supply	4/35 bag filter 484x563, 3 sets
Exhaust filter	6/6, 162x1,675 (4 pieces, diagonally cut) 2-stage pumping balance mesh
Supply and exhaust unit	MS-340500 x 1,000, 6 pieces Air supply fan/double Sirocco fan 3-phase, 200V, 7.5KW Exhaust fan/double Sirocco fan 3-phase, 200V, 7.5KW
Heat source	Pressurized air volume/static pressure: 460 /min, 425pa Gun-type burner, 240,000 Kcal/h (before heat exchange)
Maximum set temperature	Max. 80°C
Control method	Painting ⇄ drying ⇄ after purge Automatic control of internal pressure in each mode and switching mode Original TFT touch panel color LCD, 10.4" 128 colors
Safety device	Vibration detector, internal pressure abnormality, after-purge, inverter abnormality Thermal trip, fire alarm (gas pressure drop, wind pressure drop, high-noise abnormality)
Electrical capacity	Single-phase, 200V, 3.2KW Three-phase, 200V, 15.8KW
Body color	Andex white/Andex black
Included	Horizontal storage box (medium), 1 place (when open, light-work stand) 1 vertical storage box (large) Transformer box (source pressure, 1 place), pressure regulation (1 place), auto drain Outlet box (100V, x 220V, 20A, 30A) Part hanger (can be moved to the center of the painting booth)



- The air intake unit is our proud product that integrates Altia's know-how.
- Air volume and wind speed that fully meet the Labor Standards Act.
- With the theme of quietness, we have achieved low noise while securing the large air volume.
- The control motor with an internal pressure sensor ensures that the air volume can be switched between "for painting" and "for drying", a function that our rivals can not keep up.
- Exhaust unit with excellent maintainability
- This is an exhaust unit born as a result of thoroughly pursuing the ease of cleaning and replacing the exhaust filter. An exhaust fan is also built into the box to reduce noise.

Specification	
Model	AERIA-70
Ventilation method	Push-pull uniform flow triggering device
Outside dimensions of booth	4,600 (W) x 7,300 (L) x 3,475 (H) mm
Effective dimensions in the booth	4,530 (W) x 7,230 (L) x 2,700 (H) mm
Front entrance/exit for vehicle	2,800 (W) x 2,700 (H) mm, with 3 double doors
Entrance/exit for operator	Front left side (control panel side) Lower section: 40W x 4-lamp type x 10 units Upper section: 40W x 2-lamp type x 10 units
Lighting	20 units
Main body panel	35mm-thick insulated sandwich panel (galvanized base-color steel plate 0.8t)
Primary filter of air supply	4/35 bag filter 484 x 563, 3 sets
Secondary (ceiling) filter of air supply	6/6, 625 x 1,675, 20 pieces
Exhaust filter	18, 240, 500 x 1,000, 6 pieces Air supply fan/double Sirocco fan, 3-phase, 200V, 7.5KW Exhaust fan/double Sirocco fan, 3-phase, 200V, 7.5KW
Supply and exhaust unit	Pressurized air volume/static pressure: 453 /min, 500 pa Exhaust fan/double Sirocco fan, 3-phase, 200V, 7.5KW
Heat source	Exhaust fan/double Sirocco fan, 3-phase, 200V, 7.5KW Gun-type burner, 240,000 Kcal/h (before heat exchange)
Maximum set temperature	Max. 80°C
Control method	Painting ⇄ drying ⇄ after purge Automatic control of internal pressure in each mode
Safety device	Vibration detector, internal pressure abnormality, after-purge (gas pressure drop, wind pressure drop, high-noise abnormality)
Electrical capacity	Three-phase, 200V, 15.8KW Single-phase, 200V, 3.2KW

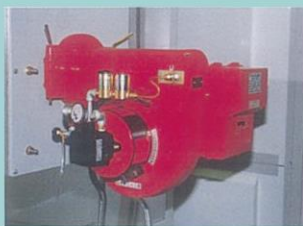


## 『AERIA-eco10』

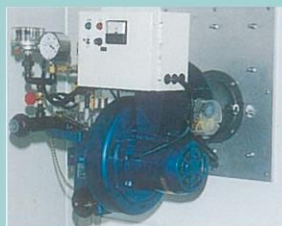
A standard booth with a compact design that integrates the intake and exhaust units, and is equipped with an internal pressure sensor as standard, which is highly beneficial.



Two types of heat sources are available.



Kerosene burner

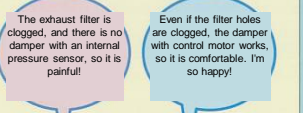


Gas burner

Control motor dampers that work with internal pressure sensors have so much to offer!



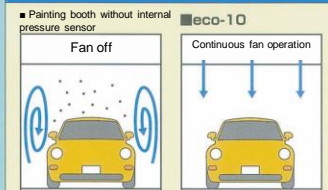
The internal pressure of painting booth is always kept constant.



The exhaust filter is clogged, and there is no damper with an internal pressure sensor, so it is painful!

Even if the filter holes are clogged, the damper with control motor works, so it is comfortable. I'm so happy!

① Switching to drying mode is smooth and there is no worry about adhesion of foreign matters



When the painting is finished, the fan is temporarily stopped, and the fan is operated again in the drying mode, so there is a risk of foreign matters being generated due to sudden pressure.

③ Automatic after-purge after drying

As soon as the drying process is finished with the time-up, the air supply and exhaust dampers move slowly and automatically switch to the painting mode. The painting booth and car are cooled with a large amount of air, allowing a smooth transition to the next process.

Specification	
Model	AERIA eco 10
Ventilation method	Push-pull uniform flow ventilator
Outside dimensions of booth	4,300 (W) x 7,000 (L) x 3,275 (H) mm
Effective dimensions in the booth	4,230 (W) x 6,930 (L) x 2,700 (H) mm
Front entrance/exit for vehicle	3,000 (W) x 2,700 (H) mm, with 3 double doors Can also be used as a small door for operators
Lighting	Lower section: 40W x 4-lamp type x 8 units Upper section: 40W x 2-lamp type x 8 units
Main body panel	35mm-thick insulated sandwich panel (galvanized base-color steel plate 0.8t)
Primary filter of air supply	4/35, bag filter, 3 sets
Secondary (ceiling) filter of air supply	6/60, 765 x 1,600, 20 pieces
Exhaust filter	ML-240, 500 x 1,000, 6 pieces
Supply and exhaust unit	One-body, 1,700 (W) x 3,000 (L) x 2,300 (H) mm
Air supply fan	Double Sirocco fan, 3-phase, 200V, 7.5KW
Exhaust fan	Double Sirocco fan, 3-phase, 200V, 7.5KW
Pressurized air volume/static pressure	453m <sup>3</sup> /min, 500 pa
Heat source	Fuel/gas (propane, city gas)/kerosene Gun-type burner, 240,000 Kcal/h (before heat exchange)
Maximum set temperature	Max. 80°C
Control method	Painting ⇄ drying ⇄ after purge Automatic control of internal pressure in each mode
Safety device	After-purge, thermal trip, fire alarm
Electrical capacity	Three-phase, 200V, 15.4KW Single-phase, 200V, 1.92KW

## 『LGS-4073-PP-16H』

Top generator type



By installing it in the ceiling, it is possible to effectively use the plant space and improve work efficiency as compared to conventional booths (installed on the side and rear).

Painting booths are used every day for 5 and 10 years...  
The most important things when purchasing a painting booth...

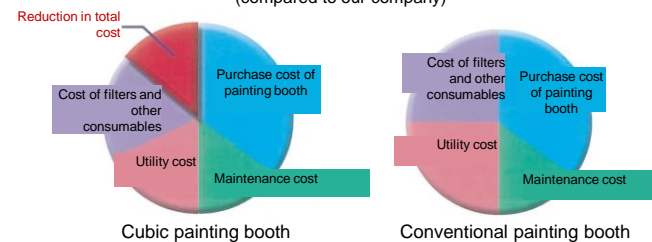
### Conditions required for future paint booth

1. Must be **fuel-saving**.
2. Enough brightness and **spaciousness in the booth**.
3. **Large air volume and low noise**.
4. Guaranteed safety for workers and enhanced operability.
5. Must be **sturdy**.
6. Temperature rise must be **fast**.
7. Far away from the filter, and long **replacement cycle**.
8. Improved **maintainability**.
9. **Purchase costs** of painting booth.

### Differences after purchasing a Cubic painting booth

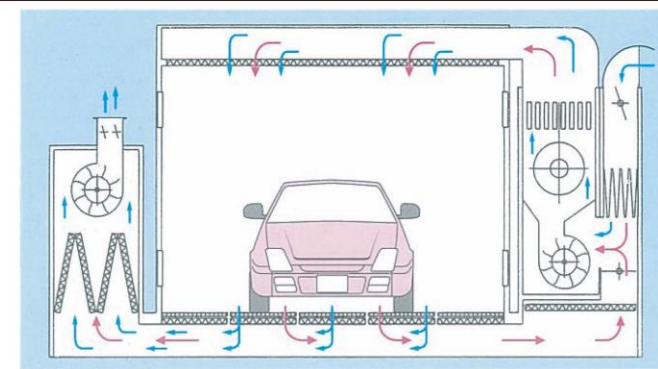
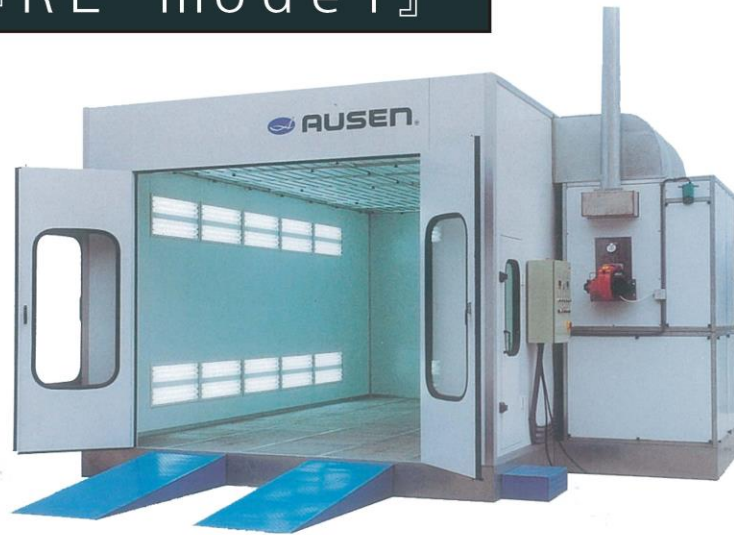
#### Reduction in total cost

Example: Comparison table of total cost when used for about 10 years (compared to our company)

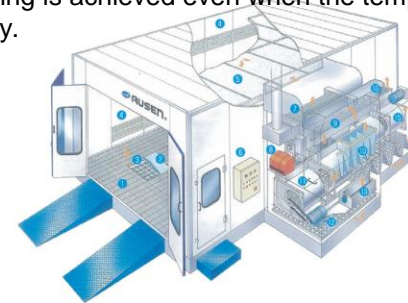


Specification	
Model	LGS-4073-PP-16
Air supply method	Top generator type
External shape	Push-pull type pit stand or pit method
Body dimensions table	7,340 mm (L) x 4,080 mm (W) x 3,320 mm (H)
Indoor	7,200 mm(L) x 4,000 mm (W) x 2,800 mm (H)
Openings and doors	3 doors/2,750 mm (H) x 2,520 mm (W)/80 mm panel thickness/double-layered glass structure
Side panel	40mm thick insulation panel with reinforcing ribs
Fan	Air supply fan: Double-suction Sirocco fan, twin type (motor 5.5KW)
Exhaust fan	Double-suction Sirocco fan, twin type (motor 5.5KW)
Filter	Air supply filter: Primary filter (cassette type)/ceiling filter (EU-5)
Exhaust filter	Cassette type
Filter efficiency	Final mist capture rate of 98% or more
Air volume/temperature	Painting process: Air volume: 170m <sup>3</sup> /m, 20500m <sup>3</sup> /h Ventilation frequency: 4.3 times/m, 258 times/h Booth flow velocity: 0.15-0.2 m/s Temperature adjustment range of hot-air painting room: 0°C~35°C
Drying process	Air volume: 170m <sup>3</sup> /m, 10200m <sup>3</sup> /h Temperature adjustment range of drying room: 0°C~80°C
Fluorescent lamp	Upper: 4 lamps/unit, total 8 units, 58W x 32 lights
Side	3 lamps/unit, total 16 units, 18W x 48 lights
Dryer	Method: Kerosene burner or gas burner Heat exchange type/fresh air heating type
Maximum output	250000 kcal/H
Power supply	Electrical capacity: Three-phase, 200V, 19KW
Operation method	Control panel: LCD touch-panel display, sequencer control type With room-temperature cooling process after drying

### 『RE model』



- When painting (blue arrow)  
The intake damper opens and the fresh air flows uniformly into and out of the booth.
- When drying (red arrow)  
The intake damper closes and the circulation damper opens to circulate 80% of the hot air in the booth. Energy saving is achieved even when the temperature rises quickly.



A standard model that pursues ideal airflow. The intake side is a whole-surface filter, and the exhaust side is a whole-surface grating structure. It is the No. 1 model in the series.

### 『ZE model』



Specification	
Model	RE
Ventilation method	Bench-type dry push-pull uniform flow ventilator
Main body structure	Insulation panel (rock wool) 60t
Outside dimensions of booth	4,126 (W) x 7,124 (L) x 3,555 (H) mm
Effective dimensions in the booth	4,000 (W) x 7,000 (L) x 2,800 (H) mm
Front entrance/exit for vehicle	3,000 (W) x 2,600 (H) mm, with 3 double doors
Entrance/exit for operator	1 side door, 700 (W) x 1,800 (H) mm
Lighting	30W x 4-lamp type x 20 units
Ceiling/floor filter	4,000 x 7,000 mm/4,000 x 7,000 mm
Air supply fan	Double Sirocco fan, 7.5KW
Air volume/static pressure	456./min, 580Pa
Burner	Kerosene: 200,000 Kcal/h LPG/LNG: 160,000 Kcal/h
Drying system	Hot-air circulation
Maximum set temperature	Max. 80°C
Exhaust fan	Bag filter
Exhaust fan	Double Sirocco fan, 7.5KW
Air volume/static pressure	456./min, 580Pa
Exhaust filter	Floor filter/cassette exhaust filter
Exhaust duct	Connection port: 1,400 x 500 mm
Air volume control	Manual exhaust damper
Safety device	Pre-purge, fire detection, high cut, wind pressure switch, gas pressure switch, vibration detector, etc.
Electrical capacity	AC200V, 3-phase, 15.4KW; 1-phase, 2.4KW

Specification	
Model	ZE
Ventilation method	Dry pit-type push-pull uniform flow ventilator
Main body structure	Insulation panel (rock wool) 60t
Outside dimensions of booth	4,126 (W) x 7,124 (L) x 3,555 (H) mm
Effective dimensions in the booth	4,000 (W) x 7,000 (L) x 2,800 (H) mm
Front entrance/exit for vehicle	3,200 (W) x 2,600 (H) mm, with 4 double doors
Entrance/exit for operator	1 side door, 700 (W) x 1,800 (H) mm
Lighting	30W x 4-lamp type x 24 units
Ceiling/floor filter	4,000 x 7,000 mm/3,100 x 6,080 mm
Air supply fan	Sirocco Fan 5.5KW x 2
Air volume/static pressure	456./min, 570Pa
Burner	Kerosene: 200,000 Kcal/h LPG/LNG: 160,000 Kcal/h
Drying system	Proportional control burner/hot air circulation
Maximum set temperature	Max. 80°C
Exhaust fan	Bag filter
Exhaust fan	Sirocco fan 5.5KW x 2
Air volume/static pressure	456./min, 570Pa
Exhaust filter	Baffle plate/cassette-type exhaust filter
Exhaust duct	Connection port: 1,700 x 600 mm
Air volume control	Automatic control of internal pressure
Safety device	Pre-purge, fire detection, high cut, wind pressure switch, gas pressure switch, vibration detector, etc.
Electrical capacity	AC200V, 3-phase, 22.4KW; 1-phase, 2.88KW

An unparalleled high value-added model that ensures high high air volume and automatically controls the environment and painting process within the booth. Two Sirocco fans create an outstanding air volume.

### 『DE model』



Overhead double-door type



Overhead single-door type

A dedicated model for a traverse painting line that pursues high efficiency and high quality. We have prepared two models, a single-door type and a double-door type, according to various layouts. The lighting, also located on the overhead doors, provides a sufficient amount of light for workers.

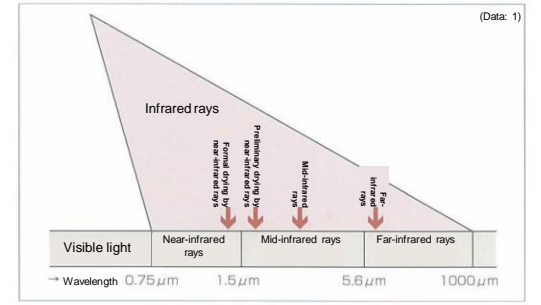
Specification	
Model	DE
Ventilation method	Dry pit-type push-pull uniform flow ventilator
Main body structure	Insulation panel (rock wool) 60t
Outside dimensions of booth	4,426 (W) x 7,124 (L) x 4,200 (H) mm
Effective dimensions in the booth	4,000 (W) x 7,000 (L) x 2,800 (H) mm
Front entrance/exit for vehicle	3,200 (W) x 2,600 (H) mm, with 4 double doors
Entrance/exit for operator	Can be used as one of the front doors
Lighting	30W x 4-lamp type x 24 units
Ceiling/floor filter	4,000 x 7,000 mm/3,100 x 6,080 mm
Air supply fan	Double Sirocco fan, 7.5KW
Air volume/static pressure	456./min, 580Pa
Burner	Kerosene: 200,000 Kcal/h LPG/LNG: 160,000 Kcal/h
Drying system	Hot-air circulation
Maximum set temperature	Max. 80°C
Exhaust fan	Bag filter
Exhaust fan	Double Sirocco fan, 7.5KW
Air volume/static pressure	456./min, 580Pa
Exhaust filter	Baffle plate/exhaust filter
Exhaust duct	Connection port: 1,400 x 500 mm
Air volume control	Manual exhaust damper
Safety device	Pre-purge, fire detection, high cut, wind pressure switch, gas pressure switch, vibration detector, etc.
Electrical capacity	AC200V, 3-phase, 15.4KW; 1-phase, 2.88KW

# Related Equipment

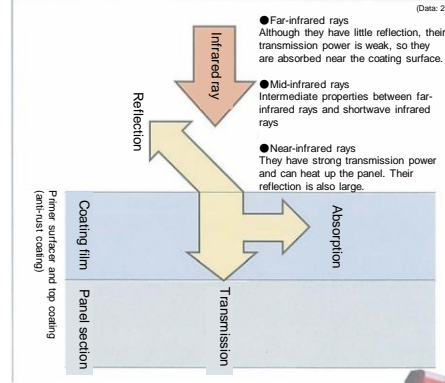
## Painting equipment

### Dryer

#### Classification of infrared rays



#### Transmission, absorption, and reflection of infrared rays on the coating

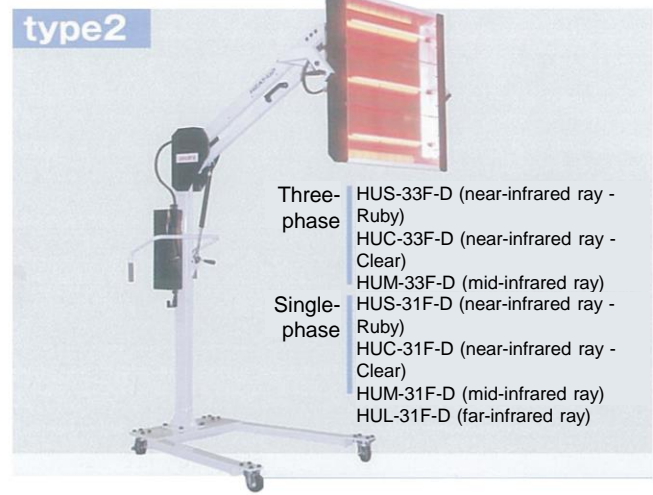
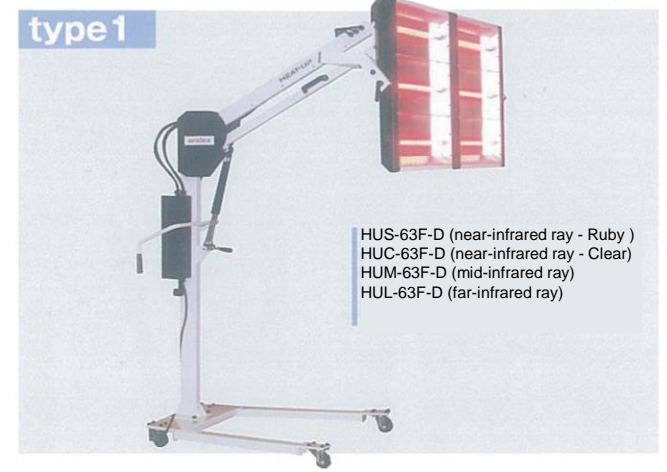


#### Enrichment of

We have been able to select lamp types (near-infrared ray (ruby), mid-infrared ray, far-infrared ray) for all models, fulfilling all customers' requests.

- Far-infrared rays: Although they have little reflection, their transmission power is weak, so they are absorbed near the coating surface.
- Mid-infrared rays: Intermediate properties between far-infrared rays and shortwave infrared rays.
- Near-infrared rays: They have strong transmission power and can heat up the panel. Their reflection is also large.

Two types of near-infrared lamps are available, one with red film and one without red film (clear tube). Red film is a film that protects the operator's eyes from strong light. The rise in temperature is reduced by about 10% as compared to clear tubes.

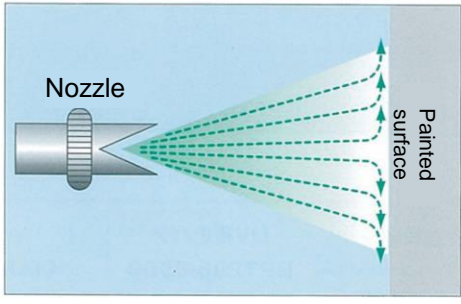


### Hot Air Low Pressure Painting Machine

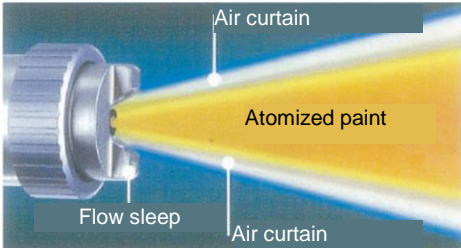


#### Low-pressure spraying system with very little splashing and rebounding

Due to the low-pressure injection, the atomized paint particles adhere to the surface without scattering outward from the flow of the injected air, as shown in the figure below, so there is almost no rebounding of paint particles.



- Since there is little scattering of paint, there is almost no paint particles rebounding back to the operators, so it is more reassuring in terms of their occupational health.
- Since the paint does not fly out of the pattern and can be reliably sprayed on the designated place, the masking work can be simplified.



Hot Air Low Pressure Painting Machine - 2 Guns Set BP7220-25NS

Hot Air Low Pressure Painting Machine - 3 Guns Set BP7220-25NT

100V

### Gun Cleaner

BP9400-3600



- Strong automatic cleaning of spray guns
- With forced exhaust device
- Reduced thinner usage
- Hygiene protection for workers

# Related Equipment

## Accident evaluation system

### Auda Seven - BP7997

The industry standard system that is chosen for its ease of use. This is a system that allows you to create quick, easy, and accurate estimates.



Vehicle body repair plant Non-life insurance company/mutual aid

## Equipment for removing and installing parts and components

### Lift



**ES Lift**  
LM4070-0001 (electro-hydraulic)  
LM4070-1001 (air-hydraulic)

Capacity: 2500Kg Lifting height: 765mm  
It is movable, and you can choose between a 200V electric type and an air-driven type according to the environment.



**3.2t SkyMax**  
Gantry wide/high post  
LM8206-0000

High-post design offers room for one-box cars to be fully lift up. Wide design offers room to open and close the doors.

### Garage Jack

Low-profile garage jack with nominal capacity from the lowest position.



**3t low-profile manual jack**  
LM4554-0000



**3t low-profile air jack**  
LM4552-A000

## Electronic equipment tool - Super Scan Tool X-431

### X-431 Basic Pack EG2106-0000

- Applicable to major domestic passenger car manufacturers
- Applicable to major overseas passenger car manufacturers
- Vehicle diagnosis machine with various functions
- On-demand on the Internet
- No need for ROM cassette, etc. because the software is sent online

### X-431 Value Pack 14 EG2106-JSA0

- 14 softwares are all included as standard by domestic and major overseas passenger car manufacturers.

### X-431 Super Value Pack EG2106-JSA5

- Softwares in Value Pack 14 can be updated free of charge for 5 years

### X-431 Lease Value Pack EG2106-LE00

- It has become easier to introduce the Super Value Pack with the dedicated X-431 Lease.



Current cars are equipped with a number of control units, such as OBD and CAN, which are intended for environmental protection and safe operation, and many electronically controlled devices such as engines, A/T, ABS, and A/C. For example, when trouble occurs in the electronic control system, it must communicate with the vehicle self-diagnostic function to call up fault codes, erase them, and stream data. Since the scan tools are required to perform these tasks, the introduction of scan tools is becoming common sense in the maintenance industry.

# Related Equipment

## Welding machine

### Spot Welder



Intelligent Vega QC  
BP7950-5004

It is equipped with a number of new features, including network function. It is possible to create everything from welding plans to quality control and welding result report. In addition, the new QC welding program makes it a top-class spot welder capable of welding new high-strength steel sheets as well as welding anything under all conditions.

### MIG/MAG Welder



Uni Auto 200  
BP7884-0001

Able to handle any materials from high-strength steel plates to aluminum panels. The wire feeding unit and the capacitor unit are separate, so the freedom of movement is very high. It is designed with the users in mind by equipping the torch tip with a light.

### Stud Welder (welding, straightening)

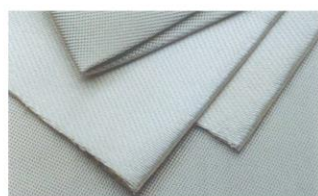


QC Stud Master  
BP8024-0000-

Able to handle any materials from high-strength steel plates to aluminum panels. It has a back burn prevention function during welding. In addition to the conventional dot straightening, the roller straightening as a new function is included as standard. This system also makes it easy to set up high-current earthing.

Heat-resistant spatter sheet  
BP6647-0000 (1800 X 840 mm, without eyelets)  
BP6647-1000 (1800 x 840 mm, with eyelets)

Made of newly developed heat-resistant fiber Z-SIL600, which combines strong spatter resistance and super flexibility.



Handy Puller DX  
BP5001-1000

Panel repair tool that can be pulled out while being pressed down.



## Inspection

### Body Measurement



Frame Measuring Machine - SHARK  
BP8501-0000

Since ultrasonic real-time three-dimensional measurement is carried out, it is easy to set up by simply setting the measuring beam under the vehicle, with no need for leveling and centering.

### Alignment Measurement



3D Wheel Aligner  
Autotarget Arago  
IM2393-0000

The top-end model of 3D aligner, which is also used for GT-R equipped with AragoDigiSmart technology.

### Light Measurement



Manual touchscreen  
Header Light Tester  
IM2712

Running lights and low beams can be measured with one unit. In addition, with the cross laser as a piece of standard equipment, it is easy to aim at the lights and the vehicle.

# Installation Equipment

## Installation Equipment

### Wheel Balancer



Smart Load S  
WS3251-5001

Basic model of the series  
Applicable rim diameter: 24 inches  
• Automatic distance input • Fine switch  
• WAS

### Tire Changer



Smart Winning 03  
WS3299-8001

A high-end model that can handle the replacement of ultra-flat and wide tires  
Applicable rim diameter: 20 inches  
- Bead helper, mount press  
- Equipped with air inflator

## Washer

### High Pressure Hot Water Washer



Mega Shine 1500  
CS65012-0000/6000

Ample water flow rate for vehicles from passenger cars to medium-sized cars  
Even applicable to trucks  
Motor output: 3.7kw

Fuel-efficient, lightweight and compact  
Eco-friendly high pressure hot water washer

Mega Shine Eco 1200  
CS6112-0000

High-pressure and small flow-rate type, with low water usage!  
Achieves excellent thermal efficiency with the pressure boiler!  
Motor output: 2.2kw



## Air Compressor



Low pressure package Air compressor  
CM7224-0000 (50 Hz)  
CM7224-6000 (60 Hz)

Pressure: 0.95Mpa  
Flow rate: 250 L/min  
Output power: 2.2kw



Low pressure air compressor  
CM7021-0000 (50 Hz)  
CM7021-6000 (60 Hz)

Pressure: 0.93Mpa  
Flow rate: 250 L/min  
Output power: 2.2kw

High pressure air compressor  
CM7060-0000 (50 Hz)  
CM7060-6000 (60 Hz)

Pressure: 1.37Mpa  
Flow rate: 210 L/min  
Output power: 2.2kw



Sub-tank for low pressure  
CM7229-0000 (57L)  
CM7230-0000 (83L)



Sub-tank for high pressure  
CM7195-0000 (150L)  
CM7196-0001 (220L)

# Compatible with water-based paints

Supports initial drying of water-based paints and solvent-based paints  
Mighty Jet

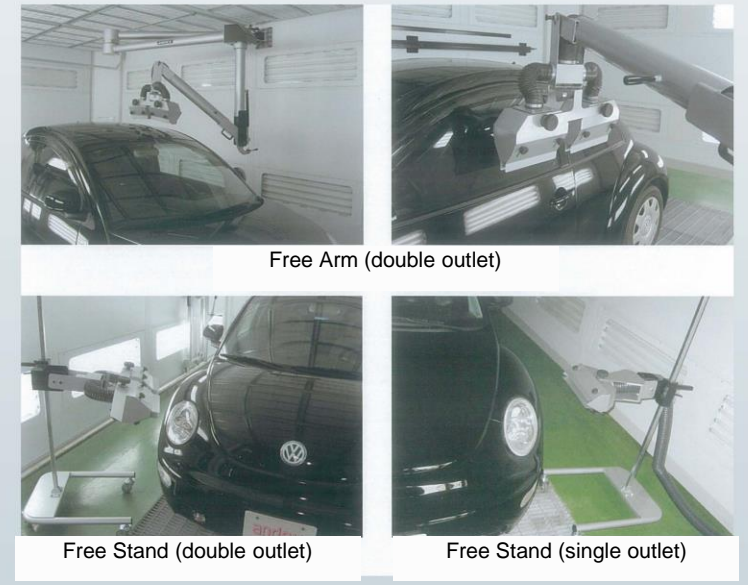
Dehumidification and drying of water-based paints  
Initial drying of solvent-based paints  
Spot cooling device in the paint booth



- Cooling mode  
The cooling breeze from the spot cooling device creates a comfortable working room.
- Drying mode (drying of water-based)  
By heating the air cooled by spot cooling device with a sheathed heater, ideal hot air is discharged.
- Heating mode (drying of solvent-based)  
Quick drying with air heated by a sheathed heater.

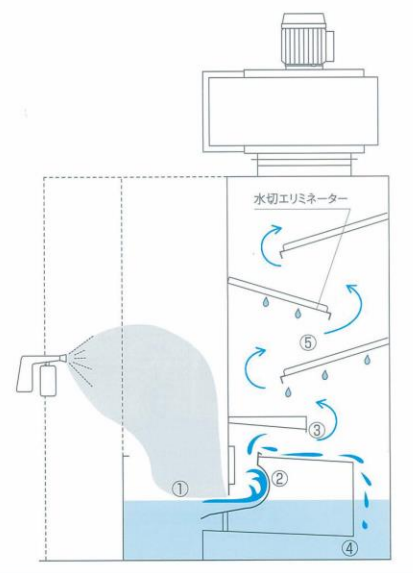


	Air flow rate 4 m <sup>3</sup> /min	Air flow rate 8 m <sup>3</sup> /min
Main unit		
	Single outlet	Single outlet or double outlet
Air outlet		
Setting method	<ul style="list-style-type: none"> <li>●Select Stand (SS)</li> <li>●Free Stand (FS)</li> <li>●Free Arm (FA)</li> </ul> <p>Discharged wind speed is adjustable.</p>	



## Pumpless Exhaust Unit - VOLTEX

• Even with water-based paints with high viscosity, there is no clogging because it is filterless.



1. A limit load fan with high static pressure provides powerful suction and exhaust.
2. A high-speed air current is generated in the narrow gap between the vortex plate and the saw-toothed plate.
3. The surface of the water is also separated and sucked in together with the air.
4. The water film and air can create a strong airflow along the vortex plate.
5. Paint mist and dust are collected by the water film thanks to the centrifugal force.
6. Water droplets are separated by the eliminator and discharged as clean air.

• The spray gun is redesigned for water-based paints. The gun body is made of magnesium, and the alumite treatment is applied to the ultra-lightweight paint passage.



Devilbiss LUNA-Pro  
BP6500-1000

• Maximizes the blowing effect that is indispensable for drying the water-based paint.



Drive Logan  
BP6500-0000

• It is water pollution if the washing water is discharged as it is. Aqua Gun Cleaner separates washing water into water and solids for treatment and drainage to prevent water pollution.



Aqua Gun Cleaner  
BP9400-0000



• A heater with a blower that uses a carbon fiber lamp that is optimal for the wavelength of water-based paints.



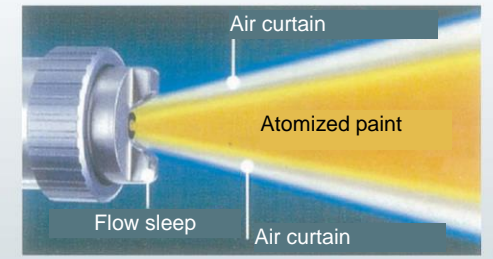
Carbon Heater with Ultrawin Blow  
BP7339-600B

• Due to the low-pressure injection, the atomized paint particles adhere to the surface without scattering outward from the flow of the air curtain, and there is almost no rebounding of paint particles.

• Highly effective for highly viscous, high-solid paints.

Low pressure hot air painting machine

- 2 Guns Set BP7220-25NS
- 3 Guns Set BP7220-25NT



- Water-based paints are sensitive to minute amounts of oil.
- Dewpower dryer can remove 99.99% of oil and moisture.
- Since no filters are used, there is no running cost.
- ISO 7391 compliant (specifications, tests and performance grade)

Dew Power Dryer Portable  
CM7260-000S

Dew Power Dryer  
CM7260-0000

