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DONG SEO HIGH TECH
AUTOMATIC WHEEL WASHER

ISO 9001 / 14001 CE

Welcome to **DSHT**

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2010-034-01

DONG SEO
AUTOMATIC WHEEL WASHER
(Wheel Wash System)

Best quality,
Customer's confidence,
Fulfilling promise

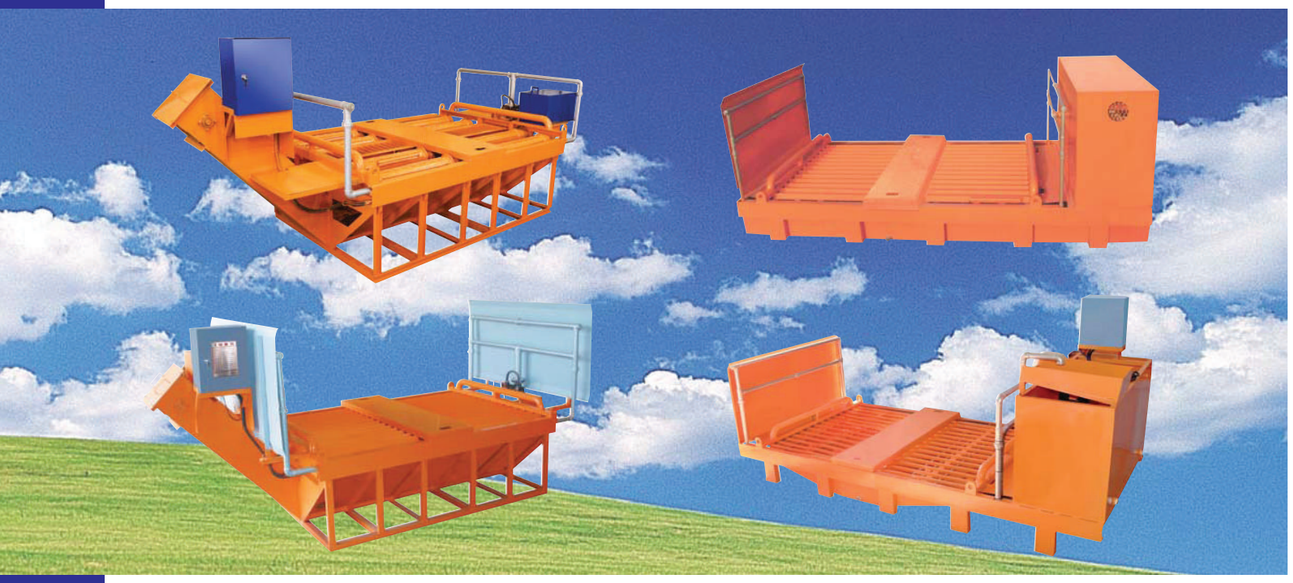
DONG SEO HIGH TECH
AUTOMATIC WHEEL WASHER

Welcome to Dong Seo High Tech.

Dong Seo High Tech pursues the philosophy of "human dignity" and "customer satisfaction".
We have developed a system to mass produce truck- wheel wash units, thanks to the concern and support of our customers and the efforts of our dedicated design team.
The company system is based on helping its customers reduce their production cost and construction periods. Staffed by the best-quality professionals and equipped with a quality guarantee system based on ISO 9001, ISO 14001certification, Dong Seo High Tech will assume full responsibility for the products released by the company.
We will make endeavors to ensure that Dong Seo High Tech can be trusted as a company that values of its customers and faithfully carries out its promises.

CEO of DSHT, Jae-hee Park

Best quality with Dong Seo's new product innovation, now the criterion of choice is changed.



History

- **1983. 12** Dong Seo Machinery established
- **1988. 01** Transformed to a corporation (DSI)
- **1993. 01** Wheel washer division inaugurated
- **1997. 05** Completed the construction of Ulsan factory
- **2000. 08** Transformed to a corporation under the changed name of Dong Seo High Tech Co., Ltd.
- **2000. 12** Acquired ISO9001 Certification
- **2001. 12** Established Seoul Office
- **2006. 09** Established Busan office
- **2007. 07** Acquired ISO14001 certification
- **2009. 07** Acquired CE certification (DTW-110, DTW-241, DTW-310)
- **2010. 01** Established Research Institute (in Ulsan Techno Park)
- **2010. 05** Selected Kotra certification brand
- **2010. 12** Awarded the prize of Ulsan mayor from KITA
  Acquired single PPM from Small & Medium Business Administration(SMBA)
  Established Hwaseong Factory in Kyeonggi-Do
- **2011. 03** Awarded the Ministerial commendation from Korean Ministry of Knowledge Economy
- **2011. 04** Awarded the Prime-ministerial commendation [Quality Innovation]
- **2012. 12** Transferred to Ulsan Plant (Gilchun Industrial Park, Ulsan, Korea)
- **2013. 12** Constructed washing machine production facility in the landfill of Seoul

DONG SEO Automatic Wheel Washer (Wheel Wash System)

Features of Dong Seo automatic wheel washer

1. Automatic wheel washing system

A super-high speed washing system operated by detecting the vehicle's In and Out movements by means of sensors. Balanced nozzle locations make wheel washing perfect on both the inside and outside of wheels, as well as underbody of the vehicle in an optimum time.

2. Strength design for durability

1) All assembled parts conform to KS standards.
2) Main frame CAD designed and built tough to last.
3) Mig (CO_2) welding used.
4) Special paints and sandblasting to prevent rusting.

3. Self-circulating cleaning water and automatic water supply system

Submersible pump installed in the wheel washer enables cleaning water to self-circulate, and automatic water supply system ensures a constant supply of cleaning water.

4. Automatic sludge removal system

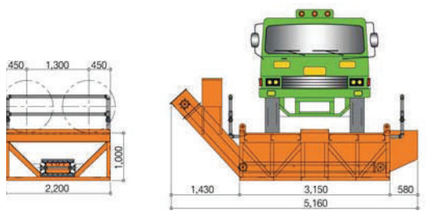
1) Powered chain conveyor installed in the wheel washer pushes out the submerged soil and debris automatically.
2) Rubber blade made of special material provides an excellent anti-abrasion property and thus lengthens the machine's durability.

DTW-110 ROLLER TYPE Operating System

High-quality and fully automatic DONG SEO wheel washer with minimum installation space. Maximum effectiveness for wheel washing!

OPTION
Steel Pit

DTW - 110



SPECIFICATION

Item	Description
Model name	DTW-110
Machine standard	2200mm(w) x 5160mm(L) x 1000mm(H)
Machine weight	4,700kg
Available vehicle	25Ton, Heavy-duty dump truck
Washing time	45sec
Capability	Max640 Trucks/day (8hours)
Power supply	220/380V, 3phase, 50Hz (Changeable)
Power consumption	15.5kW
Operating method	Automatic operation c/w limit switch sensor
Working pressure	3-4kgf/cm^2 (43-56 psi)

Wheel washing procedure

Driving vehicle IN

Drive the vehicle IN according to the guides as slowly as possible and locate the front wheels in the middle of two forward rollers.

Washing of front wheels and frontal underside of the vehicle

Put the manual gear on neutral position and release all breaking systems.
The machine will start washing the inside and outside of the wheels and underside of the vehicle.

Washing of rear wheels and rear underside of the vehicle

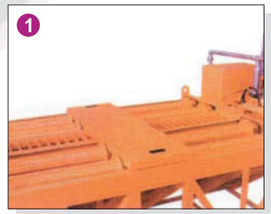
Drive forward slowly and locate the rear wheels in the middle of the two forward rollers. Put the manual gear on the neutral position and release all breaking systems. The machine will start washing the rear wheels and the rear body at the underside of the vehicle.

Driving away

After completion of washing the rear wheels, drive the vehicle away slowly.

Automatic sludge removal

After 1 cycle, the machine will remove the sludge and start refiling water automatically to prepare for the next cycle.

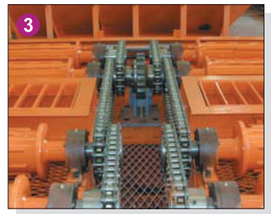


Durability

The roller is made of durable steel pipes. Round bars are welded on to the ROLLER to prevent the slipping of the wheel during operation. Furthermore, it can remove the mud between wheels when the ROLLER revolves.

Vehicle sensing device with LIMIT SWITCH

The limit switch installed between the rollers senses the vehicle. The machine has a timer for adjusting the washing time.



Protection device for backlash

This device has a RATCHET system to protect backlash.
It protects cutting on to the roller, chain and protects the gear box.

Automatic sludge removal device

This device, complete with a scraper conveyor chain and sludge guide chute operates automatically to remove solids from the wash unit helping to keep construction site clean.

Collected solids

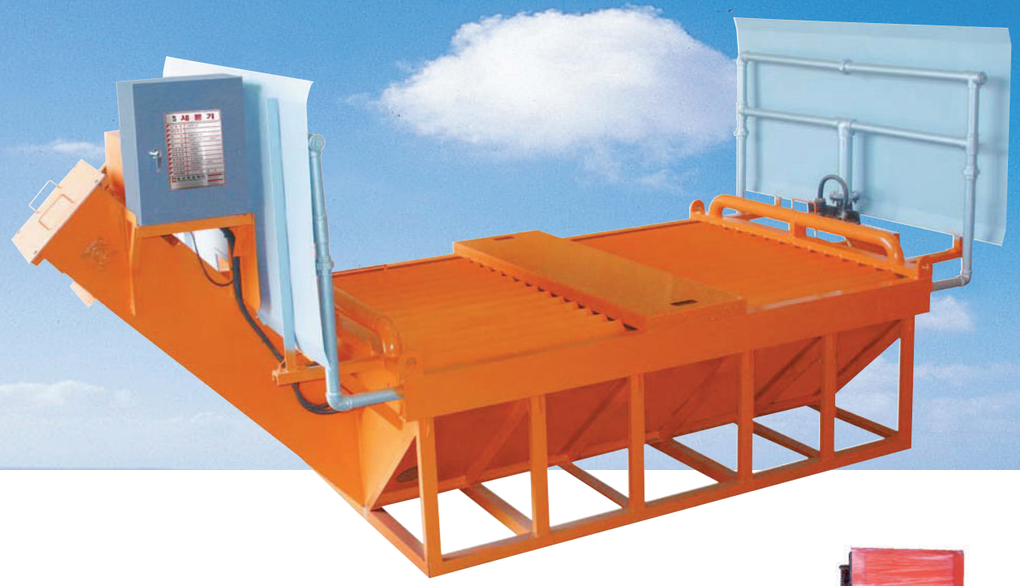
> Easy and safe disposal.
> Construction site remains clean
> Environment protected.

DTW-241 GRATING TYPE Operating System

High-quality and fully automatic DONG SEO wheel washer with minimum installation space. Maximum effectiveness for washing wheel!

Dong Seo Automatic wheel washer

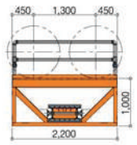
(Wheel Wash System)

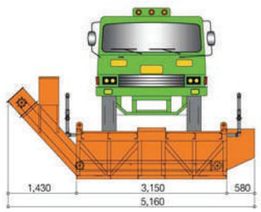


OPTION

Steel Pit

DTW - 241





SPECIFICATION

Item	Description
Model name	DTW-241
Machine standard	2200mm(w) x 5160mm(L) x 1000mm(H)
Machine weight	4,000kg
Available vehicle	25Ton, Heavy-duty dump truck
Washing time	20~40sec
Capability	Max1400 Trucks/day (8hours)
Power supply	220/380V, 3phase, 50Hz (Changeable)
Power consumption	11.75kW
Operating method	Automatic operation c/w limit switch sensor
Working pressure	3-4kgf/cm^2 (43-56 psi)

Features of Grating Type wheel washer

1. RAPID WHEEL WASHING / CONVENIENT MANAGEMENT

Wheel washing starts rapidly with an automatic sensor when the vehicle passes the wheel washer slowly, so there is no need for an operator.
This wheel wash system is extremely efficient.

2. SUITABLE FOR ALL VEHICLE TYPES

DONG SEO GRATING wheel washer can wash perfectly from small trucks to heavy-duty trucks with its powerful water jets and balanced nozzle installation. Options for large sized vehicles are available. (see : EX series page 13.)

3. MINIMUM SPACE REQUIRED

Dong Seo Grating wheel washer can be installed at entrance or exit point to roadway. If the construction is on a slope, you can install the DONG SEO GRATING wheel washer on a horizontal space with a minimum length of 6m.

4. EXCELLENT DURABILITY AND EASY INSPECTION

Made from high quality components for exceptional durability and minimal downtime. By removing the safety scaffold at the center, it is easy to inspect the machine.

5. EASY MAINTENANCE

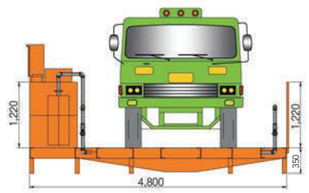
Regular machine maintenance is simple and requires minimal tools, time or skill. Long life of machine and low repair cost are due to its quality components and special heat treated steel chain for the scraper conveyor.

DTW-310 NO PIT TYPE Operating System

Washing both inside and outside of the wheels,
as well as underbody of vehicle in optimal time.

OPTION
Ramp set

DTW - 310



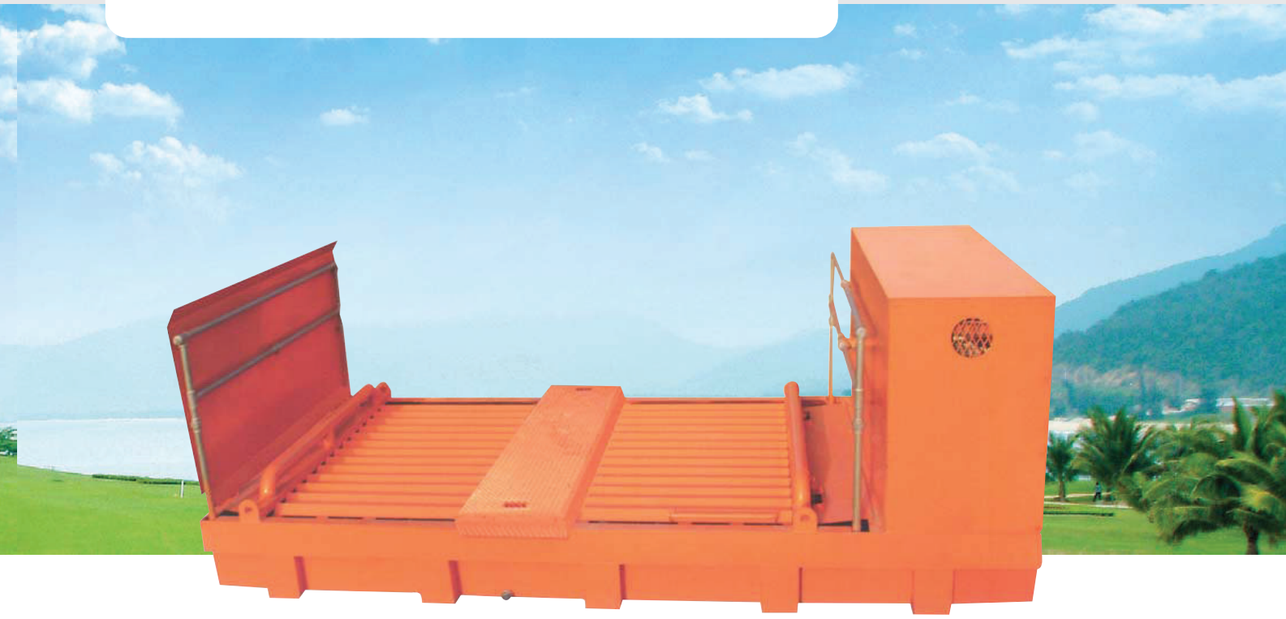
**It is easy to move.*
**It is easy to clean if you lift the center safety scaffold.*
**You don't have to install additional structure.*

SPECIFICATION

Item	Description
Model name	DTW-310
Machine standard	2200mm(w) x 4850mm(L) x 350mm(H)
Machine weight	3,000kg
Available vehicle	25Ton, Heavy-duty dump truck
Washing time	20~40sec
Capability	Max720~1400 Trucks/day (8hours)
Power supply	220/380V, 3phase, 50Hz (Changeable)
Power consumption	11.75kW
Operating method	Automatic operation c/w limit switch sensor
Working pressure	3-4kgf/cm^2 (43-56 psi)

DTW-312 NO PIT TYPE Operating System

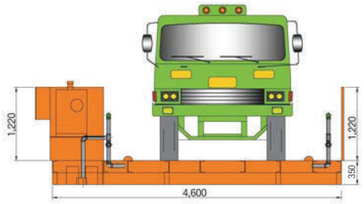
Washing both inside and outside of the wheels,
as well as underbody of vehicle in optimal time.



OPTION
Ramp set

"Optional self powered by onboard Gasoline Engine."

DTW - 312



**Construction site where it is hard to supply electricity.*
**Roadwork, embankment construction site, railway construction site.*

SPECIFICATION

Item	Description
Model name	DTW-312
Machine standard	2200mm(w) x 4600mm(L) x 350mm(H)
Machine weight	3,000kg
Available vehicle	25Ton, Heavy-duty dump truck
Washing time	20~40sec
Capability	Max720~1400 Trucks/day (8hours)
Power supply	220/380V, 3phase, 50Hz (Changeable)
Power consumption	3~5kW
Operating method	Automatic operation c/w limit switch sensor
Working pressure	3-4kgf/cm^2 (43-56 psi)
Fuel	Gasoline
Water storage	4,000litres

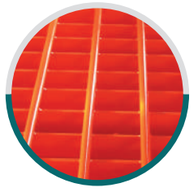
DTW-310D DOUBLE TYPE Operating System

Washing both inside and outside of the wheels,
as well as underbody of vehicle in optimal time.

SPECIAL ORDER

BOTTOM SLOPE

Sludge is perfectly discharged out of the system by natural water flow without any additional system.



SPECIAL GRATING BASE

Special grating base made by welded steel bars and steel plates is very durable. There is no rattling when the vehicle passes through the washing bay.

SPECIAL ORDER

DTW - 310D

FEATURE

**It is easy to move and install.*

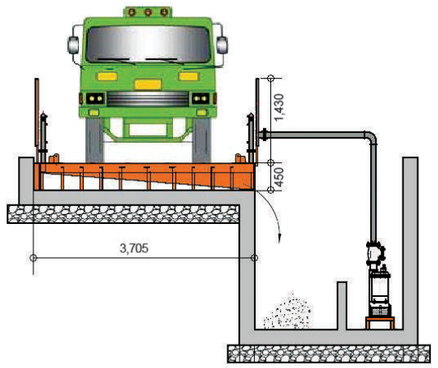
**It is simple and strong system ensures for a virtually maintenance free operation.*

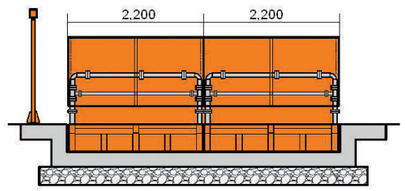
**Twice longer washing passage washes wheel and chassis effectively.*

**The system is operated automatically by infra-red motion detecting sensor.*

SPECIFICATION

Item	Description
Model name	DTW-310D
Machine standard	4400mm(w) x 3710mm(L) x 450mm(H)
Machine weight	6,000kg
Available vehicle	25Ton, Heavy-duty dump truck
Washing time	20~40sec
Capability	Max720~1400 Trucks/day (8hours)
Power supply	380V, 3phase, 50Hz (Changeable)
Power consumption	15kW
Operating method	Automatic operation c/w limit switch sensor
Working pressure	3-4kgf/cm^2 (43-56 psi)





SPECIAL ORDER

DTW-241D6 GRATING TYPE Operating System

Washing both inside and outside of the wheels,
as well as underbody of vehicle in optimal time.

DTW-241/310 EX SERIES

In both the inside and outside of wheels,
as well as underbody of the vehicle in an optimum time.

[Rearranged pipe direction]

DTW - 241D6

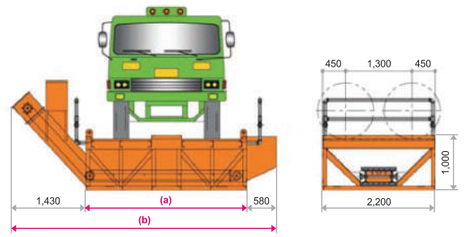
SPECIFICATION

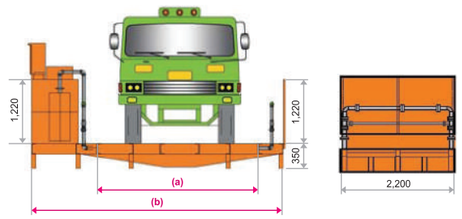
Item	Description
Model name	DTW-241D6
Machine standard	2200mm(w) x 5310mm(L) x 1000mm(H)
Machine weight	4,000kg
Available vehicle	25Ton, Heavy-duty dump truck
Washing time	20~40sec
Capability	Max720~1400 Trucks/day (8hours)
Power supply	220/380V, 3phase, 50Hz (Changeable)
Power consumption	23.25kW
Operating method	Automatic operation c/w limit switch sensor
Working pressure	5-6kgf/cm^2 (71-85 psi)

[Powerful performance with 6bar pump!]

FEATURE

**Rapid and effective wheel washing system.*
**All types of vehicles can be served.*
**Minimum space required.*
**Excellent durability and easy inspection.*
**Easy maintenance.*
**Powerful water jet.*





EX SERIES

FEATURE

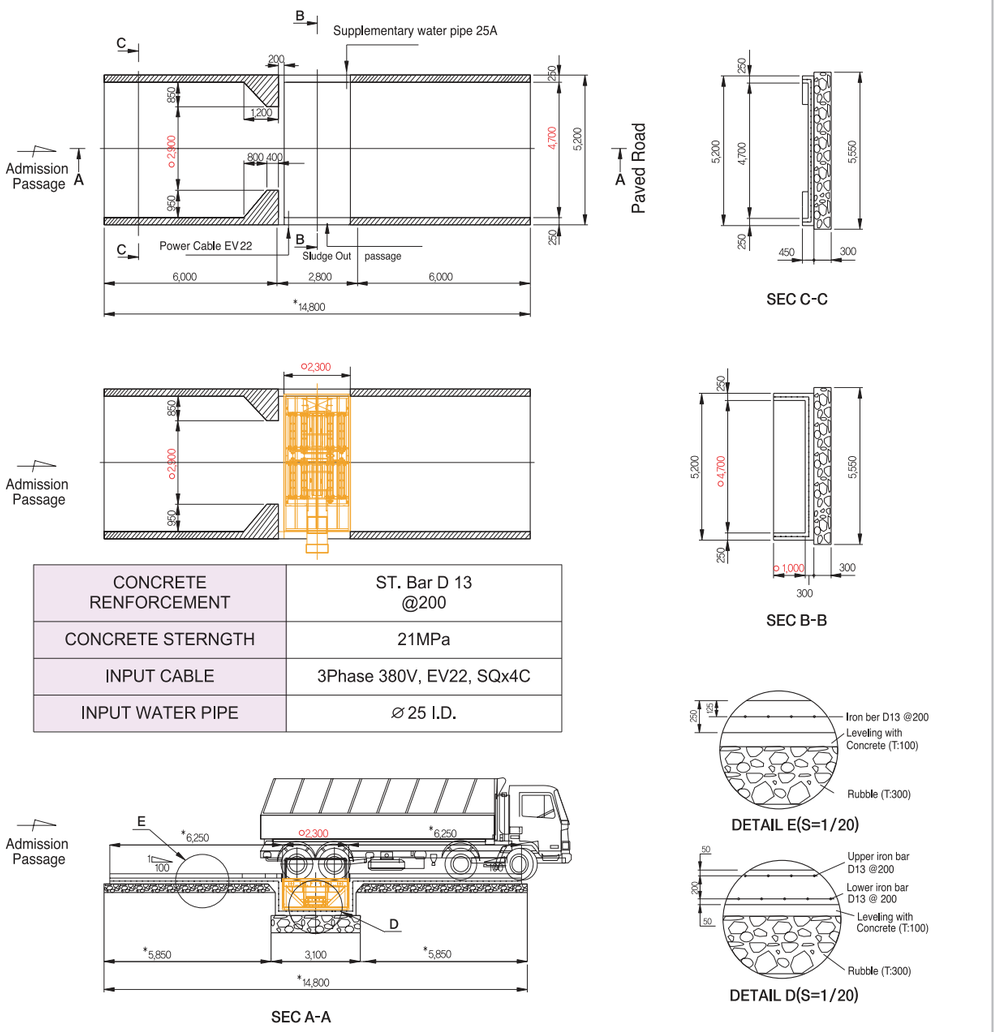
**Reinforced structure for extra vehicles.*
**Optional sizes for over-sized vehicle and site condition.*

SPECIFICATION

Model	Size a	Size b
DTW-241	3,150mm	5,160mm
DTW-241 EX1	4,200mm	6,260mm
DTW-241 EX2	4,700mm	6,760mm
DTW-310	3,150mm	4,850mm
DTW-310 EX1	4,200mm	5,900mm
DTW-310 EX2	4,700mm	6,400mm

Dong Seo **Wheel Washer** Basis Drawing

*This foundation drawing is only for **DTW-110** and **DTW-241**(right passage).*
Please enquire our headquarters for the drawing of other models or for a left passage wheel washer.

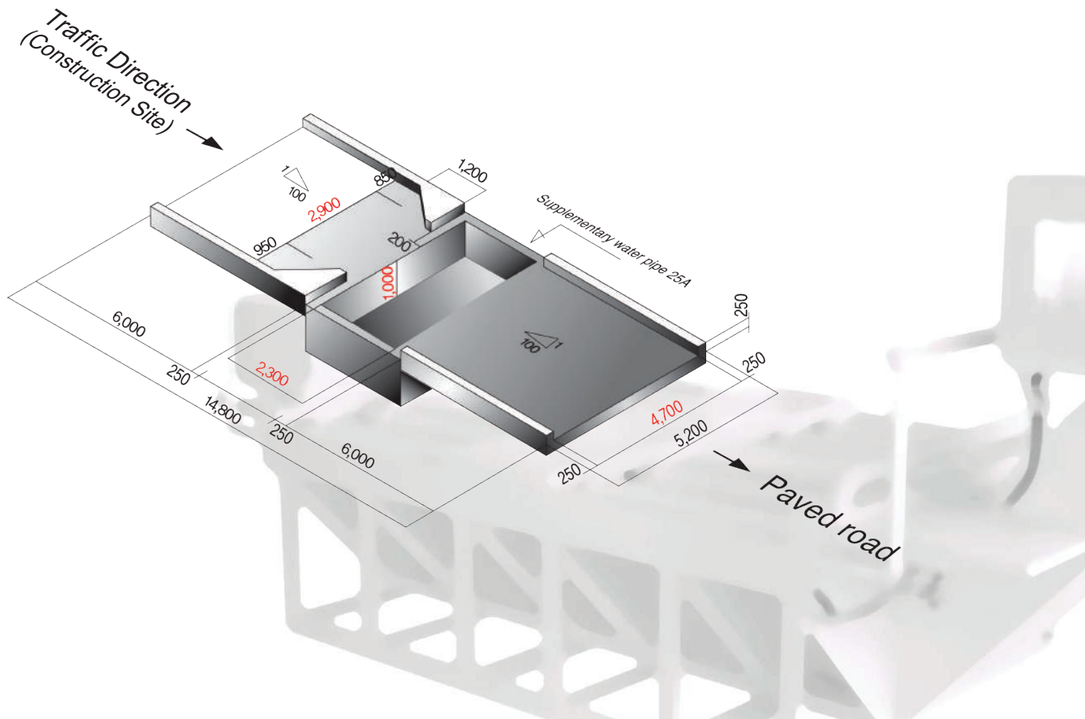


CONCRETE RENFORCEMENT	ST. Bar D 13 @200
CONCRETE STERNGTH	21MPa
INPUT CABLE	3Phase 380V, EV22, SQx4C
INPUT WATER PIPE	⌀ 25 I.D.

NOTE

1. *Power cable and pipe for water can be adjusted.*
2. *"*" mark dimension that can be adjusted depending on the construction site.*
3. *Measurement with this mark "O" is very important. Please check carefully.*
4. *If the gap between the bottom of the machine and the ground is more than 10mm, you should reinstall the machine.*
5. *Entrance and exit should be at a downward slope of 1-3%.*

Installation method for PIT (with concrete)

No.	Procedure of installation	Standard	Remark
1	Check the construction site	-	Check entrance, Exit, Direction and Power sources.
2	Foundation work	W3,000 x L6,000 x H1,400+( )	-
3	Fill the rubble	W3,000 x L6,000 x ( )	Decide it in accordance with the site dimensions.
4	Bottom iron bar, Concrete	W3,000 x L6,000 x H300	Having poured the concrete, it should be H1,100 from the ground surface. Check Correct Level!
5	Wall iron bar, Concrete	Proceed tetrahedral wall	Ensure joints between wall and pit floor are waterproof.
6	Pavement of the entrance and exit	W6,000 x L5,200 x H250	Check the downward slope. (1°~ 5°)
7	Make the vehicle guide	W6,000 x L250 x H250	-

Drawing of PIT