



GROUND SUPPORT EQUIPMENT



Since
1956
Supporting
Safe & Efficient
Ground Handling

SINFONIA TECHNOLOGY CO., LTD. continually upgrades and improves its products.
Actual features and specifications may therefore differ slightly from those described in this catalog.

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 **SINFONIA**
SINFONIA TECHNOLOGY CO., LTD.

Ground Support Equipment

Lineup

Ground Support Equipment (GSE) are expected to finish loading and unloading during very limited time before takeoff and after landing of aircrafts. Sinfonia Technology has been supplying durable and high performance GES with wide variety of product line, in order to support smooth handling operation at airports all over the world.



Container Pallet Loader



Main-Deck Loader



Transporter



Conveyor Belt Loader



Passenger Step



Towing Tractor



Ground Power Unit



Cleaning Mast Car

Container Pallet Loader

For Stable and Smooth Handling of Containers and Pallets

LIDAR sensor system applied product:

This system automatically slows down GSE's driving speed when the vehicle approaches an aircraft by detecting distance with a LIDAR sensor. It realized incredible safety and reliability.



4PDL7H-370WSF

Load Capacity	7000 kg
Container Available	LD1 to LD3 -- two LD6 to LD8 -- one
Pallet Available(Max)	96"x125" -- one
Length	8880mm
Width	4400mm
Lifting Height	Main Platform 500mm to 3700mm Bridge Platform 1750mm to 3700mm



PDL3.5-340EFT

Load Capacity	3500 kg (7700lbs)
Container Available	LD1 to LD3 -- two LD6 to LD8 -- one
Length	8591mm
Width	3060mm
Lifting Height	Main Platform 490mm to 3400mm
Bridge Platform	1750mm to 3400mm

Container pallet loaders, which consist of elevating equipment, main platform, and bridge platform, handle containers and pallets safely, and quickly.



PDL6.8-360SESr

Load Capacity	6800 kg (15000lbs)
Container Available	LD1 to LD3 -- two LD6 to LD8 -- one
Pallet Available(Max)	96"x125" -- one
Length	8415mm
Width	3285mm
Lifting Height	Main Platform 490mm to 3600mm Bridge Platform 1715mm to 3600mm

Main-Deck Loader

Powerful Handling for Heavy Cargo

Main deck loaders are used for handling heavy cargos to cargo jets. PDL27-560 is single platform type, and it's suitable for handling long cargo items.



PDL27-560

Load Capacity	27000 kg
Length	11980mm
Width	4300mm
Pallet Available	96"x125" -- two
Lifting Height	490mm to 5600mm
Platform Width	3250mm
Platform Length	9290mm



PDL32-560

Load Capacity	32000 kg
Length	11980mm
Width	4300mm
Pallet Available	96"x125" -- two
Lifting Height	490mm to 5600mm
Platform Width	3250mm
Platform Length	9290mm



PDL13.5-550WS

Load Capacity	13500 kg (30,000lbs)
Length	11660mm
Width	4545mm
Pallet Available	96"x125" -- one
Lifting Height	Main Platform 495mm to 5500mm Bridge Platform 2000mm to 5500mm
Container Available	LD1 to LD3 -- two LD6 to LD8 -- one

Transporter

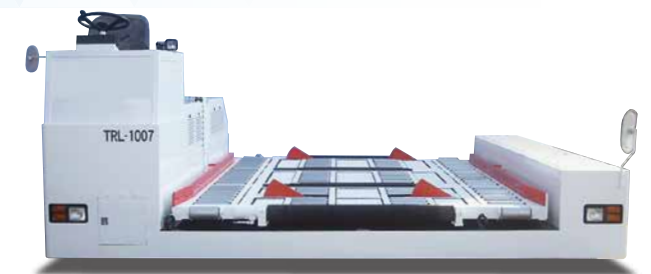
Interface with aircraft container pallet loaders, container pallet dollies, and truck loading

Sinfonia's transporters are durable and reliable. Moreover, because maintenance is simple, it can be used for longer period to support smooth material handling operation.



PDL6.8-160

Load Capacity	6800 kg (1500lbs)
Overall Length	4200mm
Overall Width	4100mm
Overall Height	1900mm
Pallet available(Max)	96"x125" -- one
Lifting Height	1600mm



TDH7

Load Capacity	7000 kg
Overall Length	4200mm
Overall Width	4100mm
Overall Height	1900mm



PDL8L-180

Load Capacity	8000 kg
Length	6570mm
Width	4300mm
Pallet available(Max)	96"x238.5" -- one
Lifting Height	1800mm

Conveyor Belt Loader

Realizing Stable and Safe Handling

This vehicle is used for bulk loading and unloading of baggages. By using belt conveyor, smoothly load, and unload passenger's baggages. Sinfonia Technology also supplies electric belt loaders which are low noise, and zero-emission.



2DBLS1-415 Series	
Capacity	1000 kg
Lifting Height	4125mm
Length	7650mm
Width	2050mm
Height without Roof	1425mm
Conveyor Length	7650mm
Conveyor Width	800mm
Belt Width	600mm

LIDAR sensor applied product

This system automatically slows down GSE's driving speed when the vehicle approaches to an aircraft by detecting distance with a LIDAR sensor



BBL1A-390 Series Battery Driven Type	
Capacity	1000 kg
Lifting Height	3900mm
Length	7660mm
Width	2000mm
Height	2400mm
Conveyor Length	7100mm
Conveyor Width	1000mm
Belt Width	800mm

3DBL1A-390 Series	
Capacity	1000 kg
Lifting Height	3900mm
Length	7660mm
Width	2040mm
Height	2550mm
Conveyor Length	7100mm
Conveyor Width	1000mm
Belt Width	800mm



Passenger Step

Supporting Comfortable Enplaning and Deplaning of Passengers in the Apron Area

Passenger steps equip step frames which consist of an adjustable step and a main step on truck mounted or self-propelled chassis, which are applicable for wide range of aircrafts. In short, the vehicles support passenger's safe and comfortable travel.



Wheel chair lifter ※Optional



PES-750 Series (with Canopy)	
Capacity	45 passengers
Overall Length(step most extended)	10900mm
Overall Width	3360mm
Overall Height	6070mm - 7780mm
Platform Height	2680mm - 4770mm
Platform Size	2915mm X 2650mm

2PES-750UL	
Capacity	70 passengers
Overall Length	9460mm - 11600mm
Overall Width	3360mm
Height	6070mm - 7780mm
Platform Height	2680mm - 4770mm
Platform size	1800mm X 2000mm

Towing Tractor

Transport Aircraft Safely, and Accurately without Wasting Jet Fuel



Sinfonia's push-back towing tractors with over cab type design provides easy towing operations. Applicable for various aircrafts types for improved operators comfort.



TD-3000T-50	
Length with GPU Platform	8300mm
Width	2920mm
Height	2900mm
Dead Weight	50000kg
Draw bar Pull	353kN (μ=0.73)

TD-1000T	
Length	5400mm
Width	2550mm
Height	3000mm
Dead Weight	14300kg
Draw bar Pull	95kN

Ground Power Unit

Stably Supplying Power to Aircrafts



Ground Power Unit

A GPU supplies power for equipment of aircraft such as indicators, radars, equipment for maintenance, and starter of engine before take-off.

	AC	DC
Rated output	40kVA~180kVA (Continuity)	500A~800A (1h (perhour))
Rated voltage	115V/200V	28V
Frequency	400Hz	
Output Current		~2000A

Solid State Converter

Solid State Converter is used for converting commercial power from 50/60Hz to 400Hz for aircraft maintenance.



	AC
Rated output	60kVA~180kVA(Rated)
Rated voltage	115V/200V
Frequency	400Hz
Number of phase	3 phase 4 lines