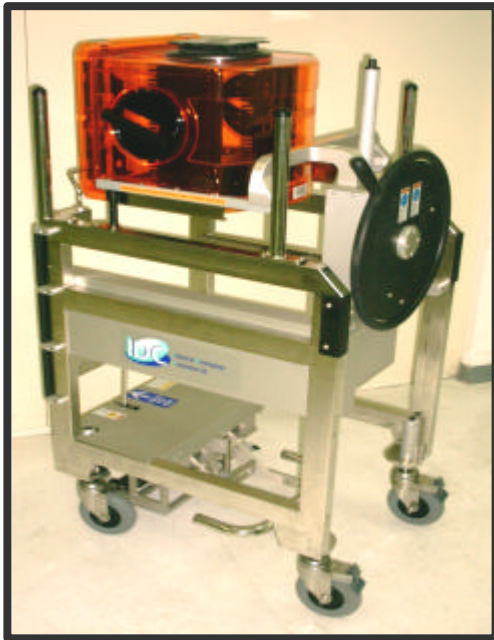


**IDC Ergoloader Single RSA PGV**  
**Rear & Side Access**



## Overview

### Frontend & Backend Application

IDC's 300mm Single RSA Person Guided Vehicle, the Ergoloader, is designed to facilitate the manual transfer of 300mm FOUPs, FOSBs and Frame Cassettes. It is an ergonomically correct device that allows operators to safely handle 300mm Wafer Carriers both for Frontend and Backend, that typically weigh up to 18 Kg each. This unique design allows side access operation in very narrow bays. The PGV can easily interface with any process and assembly tool that conforms to the SEMI E15.1 loadport standard, and is equipped with a SEMI E83 compatible PGV docking flange.

## Features:

"Single" Design for one FOUP, FOSB or Frame Cassette Held at 900mm Height Minimizes Operator Work Exertion

Ergonomic Loading Device with Cam Actuated and Dampened Z Motion for Efficient and Safe Wafer Carrier Transfer

Easy to Maneuver Push Vehicle from either side or back

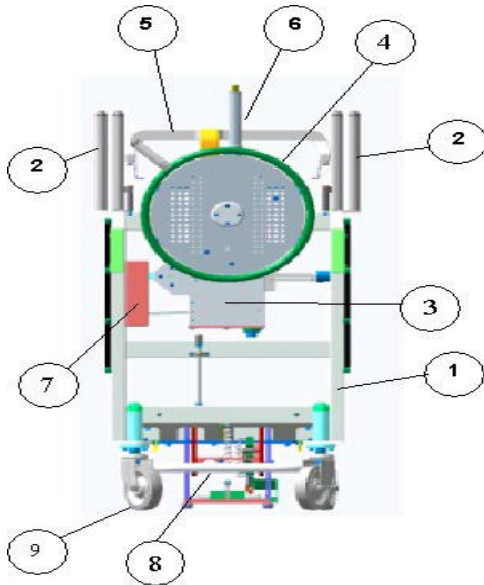
Easy Side Docking with Self-Aligning and Latching Docking Mechanism

Electro-Static Discharge (ESD) Proof

Vibration Absorbing Suspension with Free Castor Wheels and "Zero" Turning Radius for Easy and Safe Transport

Class 1 Cleanroom Compatible Design with Electro-Polished Stainless Steel Frame Provide Easy Cleaning

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## System Specifications

### Vehicle Configuration

Vehicle type:	Single FOUN, FOSB & Frame Cassette Docking and Transfer Mechanisms
Vehicle Weight:	51Kg
Length:	0.508m
Depth:	0.610m
Height:	1.260m
Gripper type:	Passive, Conveyor Rail Gripper
Safety Systems :	Designed to meet S2/CE

### Performance

Payload:	300mm: FOUN, FOSB, Frame Cassette
Docking Cycle Time:	5 sec
Transfer Cycle Time:	8 sec
Undock Cycle Time	2 sec

DESCRIPTION	ITEM #
CART	1
PUSH HANDLES (X4)	2
Z-BOX	3
LIFTING WHEEL + HANDLE	4
TRANSFER GRIPPER	5
TRANSFER HANDLE	6
TRANSFER MECHANISM	7
DOCKING PEDAL	8
WHEELS/CASTORS	9

### Facility Requirements

Electrical Power:	None
Floor Loading:	Vehicle 51 Kg
Loadports:	SEMI E15.1 E64-0698
Docking Flange:	SEMI E83-0699

### PGV Operation:

1. Push PGV Along Bay, Stopping Close to Process / Assembly Tool Loadport
2. Perform Dock and Loading Operations:
  - 2.1 Depress Foot Pedal To Extend Docking Mechanism
  - 2.2 Push Vehicle tangent to Loadport, Until Docking Mechanisms Latches onto the Docking Flange Pin
  - 2.3 Swing Lifting Arm Through 90° to Lift Wafer Carrier
  - 2.4 Push Transfer Gripper, Extending Wafer Carrier Over Loadport KC
  - 2.5 Release Lifting Arm 90° Lowering Wafer Carrier Onto Loadport KC
  - 2.6 Pull Transfer Gripper Back Over PGV Platform
3. Depress Foot Pedal to Undock From Loadport