

IDC 450mm RSA PGV



Overview

Frontend & Backend Application

IDC's 450 mm RSA Person Guided Vehicle, the Ergoloader, is designed to facilitate the manual transfer of 450 mm FOUPs, FOSBs and MAC. The PGV can easily interface with any process tool that conforms to the SEMI E154 loadport standard, and is equipped with a SEMI E83 compatible PGV docking flange.

Features:

"Single" Design for one FOUP, FOSB or MAC Held at standard 913mm Height, Minimizes Operator Work Exertion

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

Easy to Maneuver Push Vehicle from either side or back

Electro-Static Discharge (ESD) Proof

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

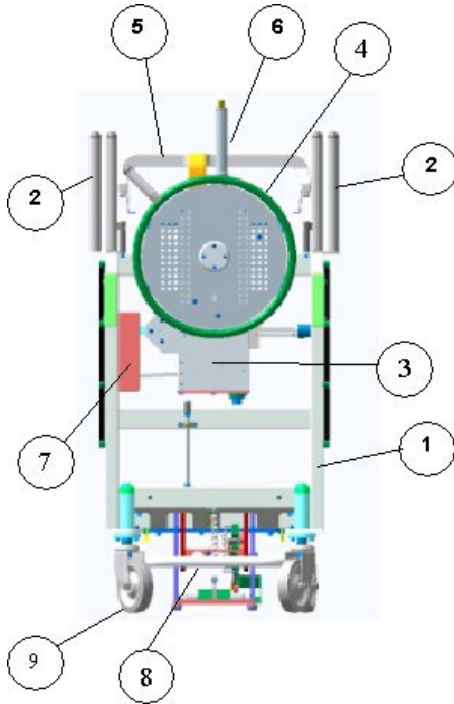
Class 1 Cleanroom Compatible Design with Electro-Polished Stainless Steel Frame Provide Easy Cleaning

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System Specifications

Vehicle Configuration

Vehicle type:	Single FOUP, FOSB & MAC Docking and Transfer Mechanisms
Vehicle Weight:	90Kg
Length:	0.62m
Depth:	0.71m
Height:	1.175m
Gripper type:	Passive, Conveyor Rail Gripper
Safety Systems:	Designed to meet S2/CE

Performance

Payload:	450mm: FOUP, FOSB, MAC
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:	Loaded Vehicle 115 Kg
Loadports:	SEMI E154, E162
Docking Flange:	SEMI E83

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 Until Docking Mechanism 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