

Stacker Crane

www.smck.com

Unit Load

With Reputation for
Reliable Materials Handling
System over 70 years experience



Factory Automation

Order Fulfillment

Picking & Sorting

AS/RS

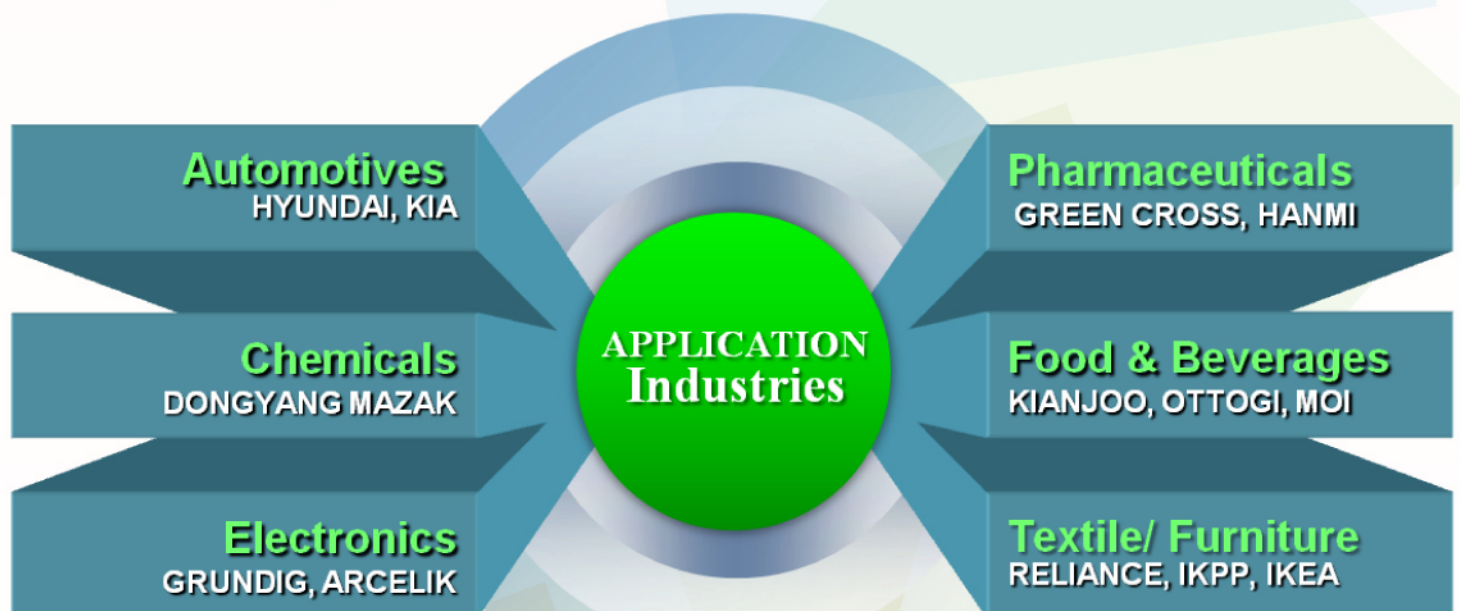
**With Reputation for
Reliable Materials Handling
System over 70 years experi-
ence**

**SMC's stacker crane is highly reputed for the stable automatic materials handling trans-
portation. Well-equipped option for single or double load devices, it allows the maximum
throughput with high-speed and stable bay performance.**

Vertical, Horizontal, and Shuttle movement for High speed, Precise control

Stacker Crane classified by load

- Unit Load
- Mini Load



Stacker Crane

MAIN COMPONENTS



Hoisting Motor & Drum wire

With encoder for ensuring high stop positioning, Providing fast closing trigger that shall automatically stop the hoist carriage under emergency

Equipped with all the functional components internationally accepted



Top Frame

Guide Rollers are attached to prevent stacker crane from getting derailed



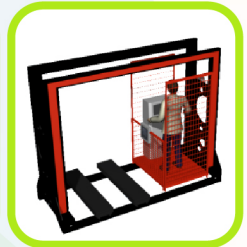
Telescoping Fork

Mechanical stopper at the end of fork



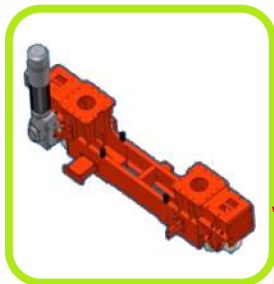
Carriage

Hoist drive let it transfer cargos up/down, not only fork but also sensors for are attached on the carriage. (Cabin type is optional)



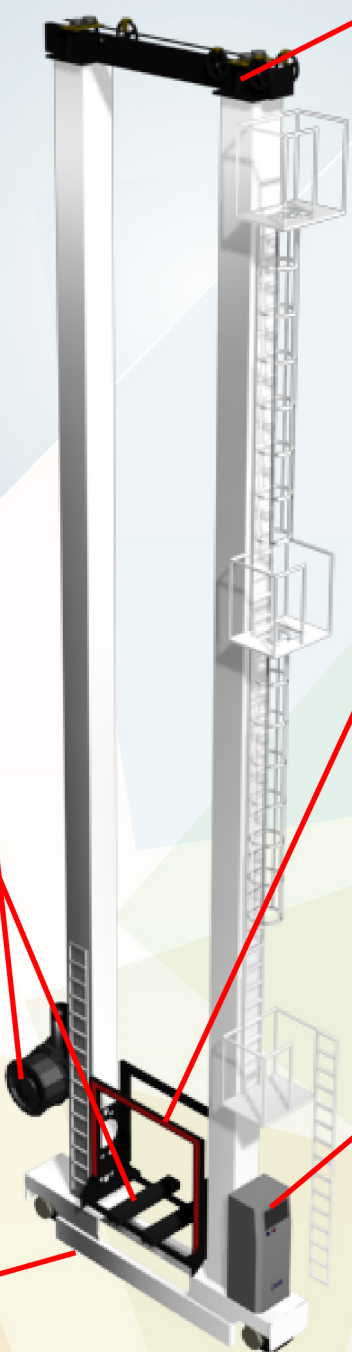
Stacker Crane Controller

PLC, inverter, power unit, magnet switcher, etc are mounted inside of cabinet and control pushbuttons, keypad, selectable switch is also mounted on the top cover



Bottom Frame

During an emergency stop against buffers at the end of bottom track.



Stacker Crane

Optimal specification of the customized machine in consideration of the business



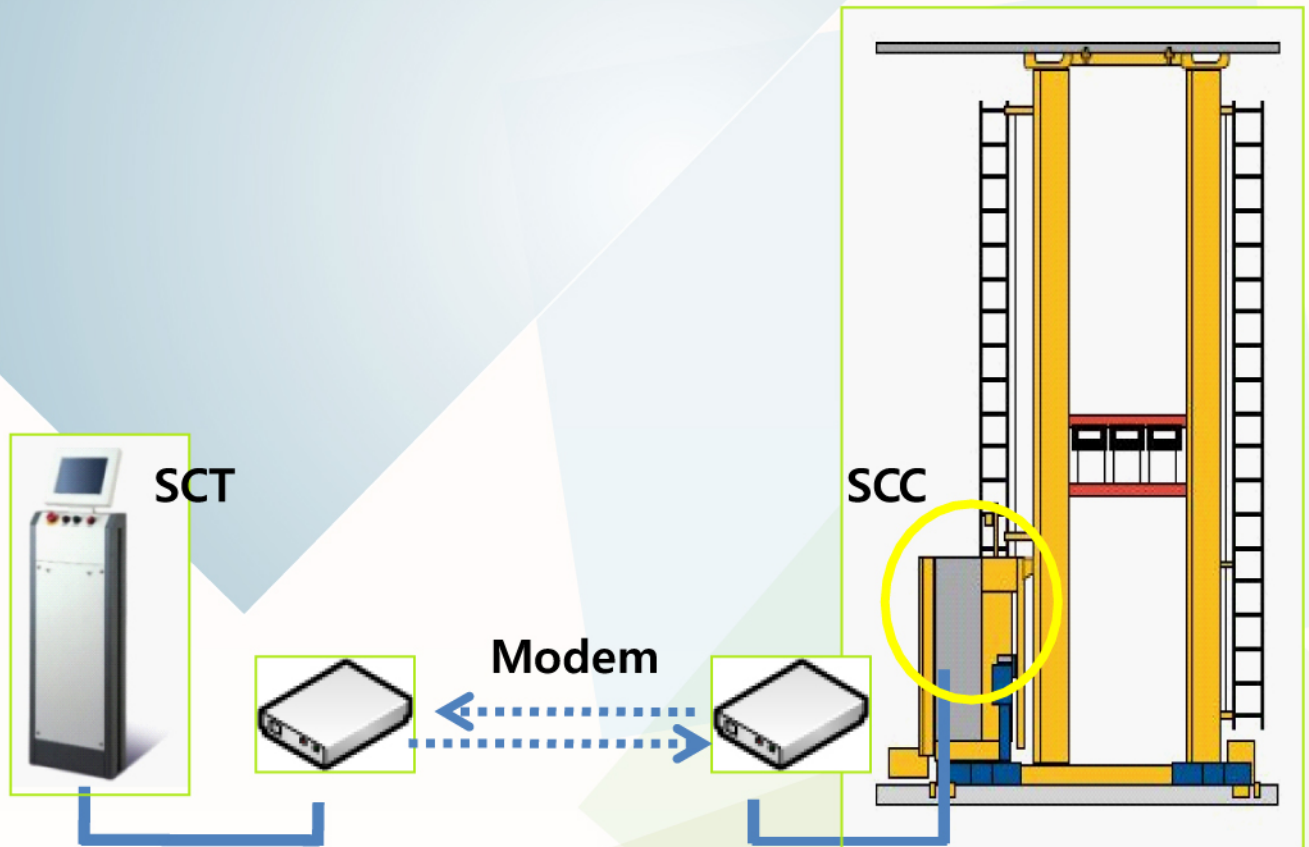
SPECIFICATION

Type	Floor mounted monorail, Double-mast
Load weight	Max. 10 Tons
Rack height	Max. 40m
Traveling speed	Max. 270 m/min
Forking speed	Max. 60m/min
Hoisting speed	Max.60m/min
Controller	SMC5000 or PLC
Power supply	Trolley Duct

Stacker Crane

Interfaces to plant level warehouse control systems, but have end-of-aisle controls

STACKER CRANE CONTROLLER TERMINAL (SCT)



SCT (Stacker crane Control Terminal)

- Stacker cranes can be remotely controlled through optical modem.
- SCT is in charge of manual operation, ordering work and recovery processing
- SCT is the stationary controller which makes workers do not need entering the aisle to reach the control panel attached to stacker cranes.

SCC (Stacker crane Carrier Controller)

- SCC is in charge of controlling speed or position, ordered by SCT.

Stacker Crane

**Ergonomic & Safety
requirement fulfilled**

SAFETY FEATURES

- Limit switch for emergency stop in traveling and lifting
- Persistent monitoring a limit switch/sensor
- Persistent monitoring a speed
- Mechanical stopper at the top end of stacker crane
- Mechanical stopper at the end of fork
- Anti free-fall device in case wire rope's failure
- Interlock to prevent stacker crane/fork movement while fork/stacker crane is moving
- Sensor to avoid oversize loads/center-positioning error
- Sensor to avoid double load storage error
- Safety device against electricity
- Alarm for data error
- Maintenance ladder and platform
- Hydraulic shock absorber



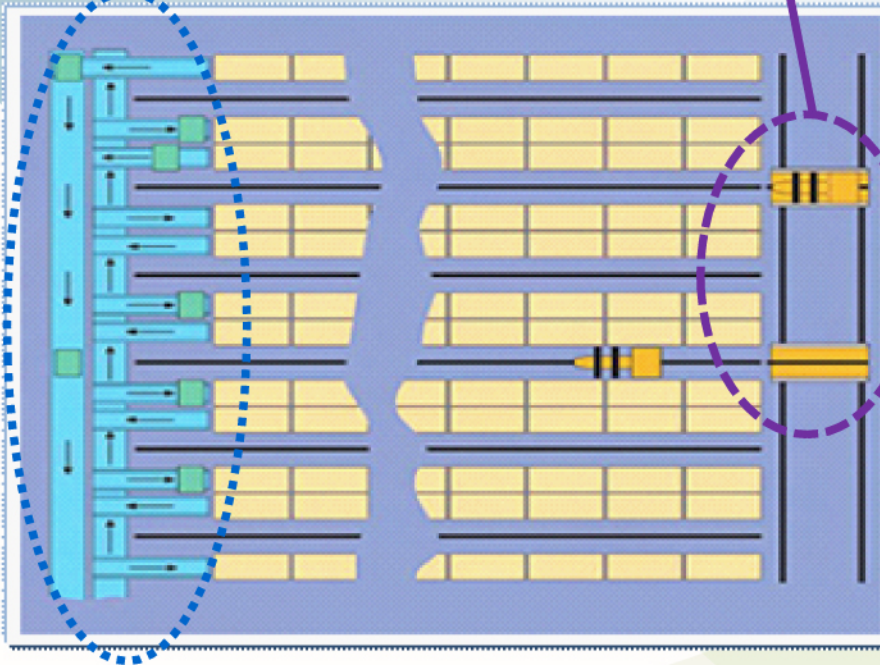
Traverser

Alternatives for the need of low throughput and high storage capacity

FEATURES

INPUT&OUTPUT AREA

TRAVERSER



- Transports the cranes and its payload between aisles with full automation
- Cost-effective specially when relatively low throughput and high storage capacity are required

Speed : 20m/min

