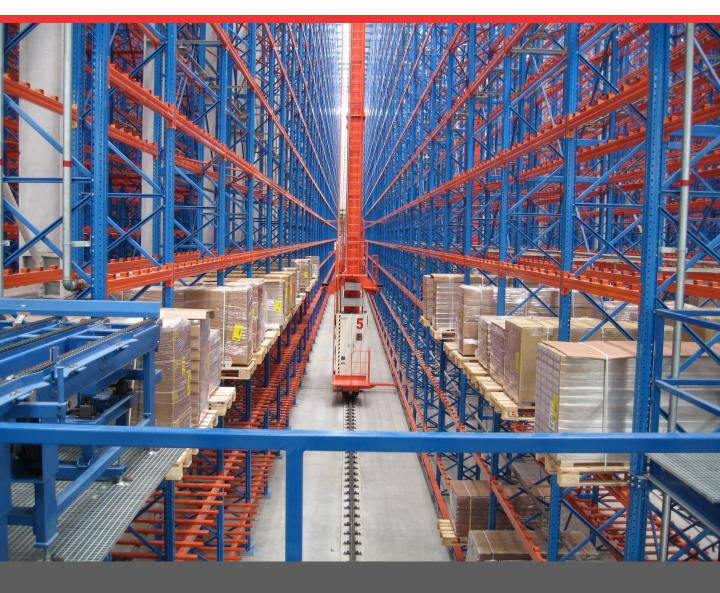# Stacker Crane

SMCore's high-speed Stacker Crane
increases throughput of warehouses

Stacker Crane

Stacker crane takes the main role in automated storage and retrieval system(AS/RS) as performing loads trans it. Stacker crane travels along the aisle and transfer loads from a specific storage location to an input or output station and vice versa.

SMC's Stacker Cranes' millimeter precise positioning, forking, and centering allow users to configure easily with flexibility for almost any application.

Basic Specification

- ✓ Type : Floor mounted monorail, double mast
- ✓ Load weight : Up to 10,000KG
- ✓ Traveling speed : Max 270m/min
- ✓ Load size : Varies upon request
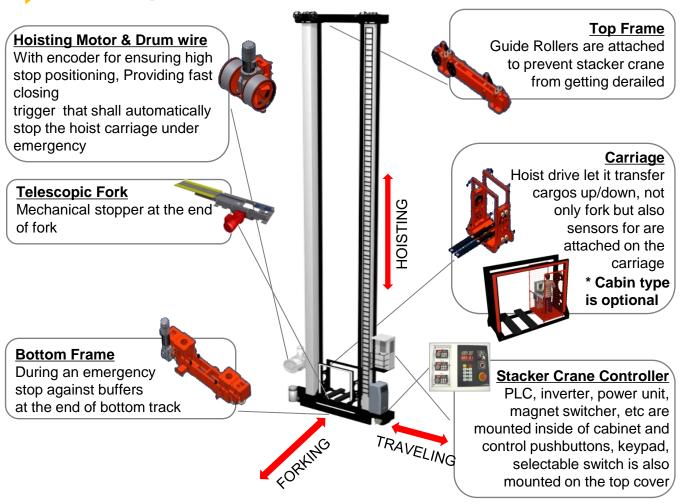- ✓ Applicable to single or multiple-deep rack

Benefit

- ✓ Outstanding performance with high-speed up to Max. 270 m/min
- ✓ Stability of load handling during smooth acceleration & deceleration by S-Curve speed control
- ✓ Precise & accurate positioning by motion control
- ✓ Alternative or complementary control mechanism considering user specific environment
- ✓ Capable of handling loads with multiple dimension and weight simultaneously
- ✓ High space utilization by design optimization
- ✓ Slim telescopic fork (thickness 65mm) for Euro-pallet.
- ✓ Flexible designs for single and multiple-deep storage
- ✓ Safety mechanism and device application as per EN528
- ✓ Easy maintenance by checking error history & trouble shooting by remote control
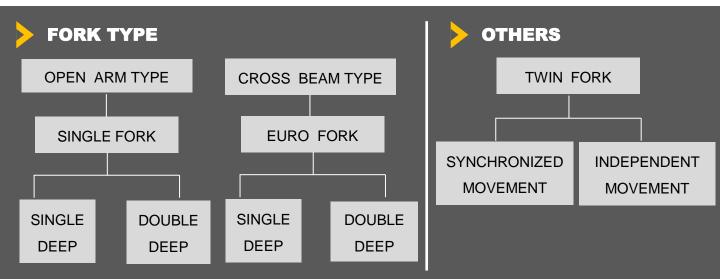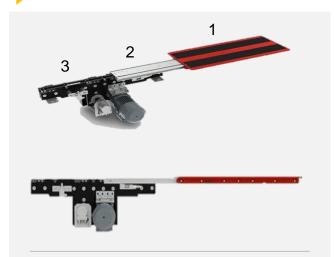
Components

▶ Main Component

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

Telescopic Fork
Mechanical stopper at the end of fork

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

Top Frame
Guide Rollers are attached to prevent stacker crane from getting derailed

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

* Maintenance lift is optional

HOISTING

FORKING

TRAVELING

▶ FORK TYPE

OPEN ARM TYPE	CROSS BEAM TYPE
SINGLE FORK	EURO FORK

SINGLE DEEP	DOUBLE DEEP	SINGLE DEEP	DOUBLE DEEP

▶ OTHERS

TWIN FORK

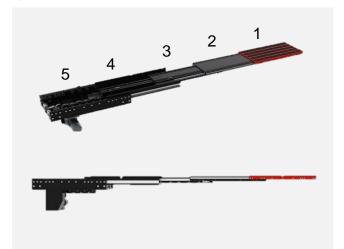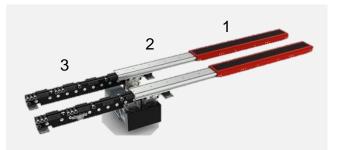| SYNCHRONIZED MOVEMENT	INDEPENDENT MOVEMENT

SINGLE FORK - OPEN ARM TYPE

> SINGLE DEEP

Single deep fork is consist of three parts.
When operated, 3rd. part of the fork do not move and 1st. And 2nd. Parts moving forward.
(Driving Motor x 1ea.

> DOUBLE DEEP

Single deep fork is consist of three parts.
When operated, 3rd. part of the fork do not move and 1st. And 2nd. Parts moving forward.
(Driving Motor x 1ea.

SINGLE FORK - LOAD BEAM TYPE

> SINGLE DEEP

Single deep fork is consist of three parts.
When operated, 3rd. part of the fork do not move and 1st. And 2nd. Parts moving forward.
(Driving Motor x 1ea)

> DOUBLE DEEP

Double Deep Fork is consist of four parts. When 1st. Stroke operated, 1st. and 2nd. part moving forward (3rd. and 4th. Parts no move) When 2nd. Stroke operated, 1st. 2nd . and 3rd. part moving forward (4th. Parts no move) (Driving Motor x 2ea)