

## Introduction

Stacker cranes usually floor mounted and rack guided overhead, store and retrieve pallets up to 40 metres. Typically these are automatically controlled units with many adaptations available which include double pallet handling, man-up capability, manual and semi-automatic modes.

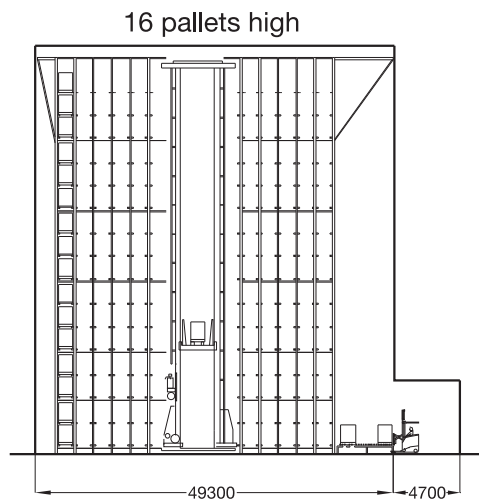
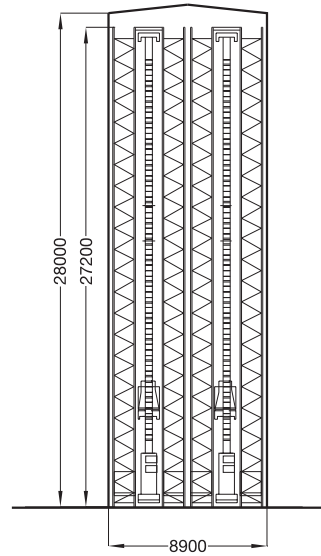
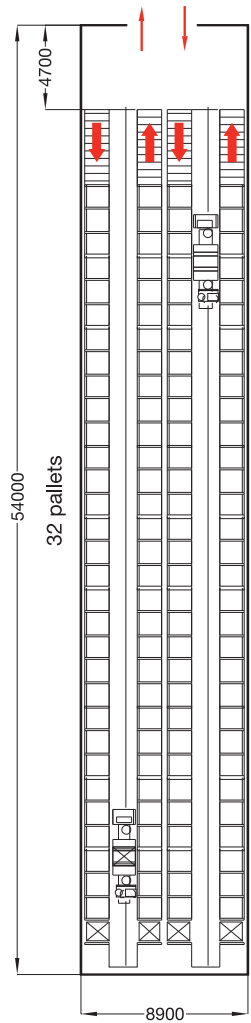
Special consideration in AS/RS include infeed and outfeed systems, automatic fire protection, very high tolerance racking, closely controlled load sizing and weight checking.

Specialised building and installation techniques, offering seismic and rack supported buildings can be considered.

## Features

- High storage density with minimal building footprint.
- Purpose built facilities ensure built for purpose features.
- Low running costs associated with automation.
- Highly efficient warehouse management is normal.
- Fast and accurate operations in man free environment.

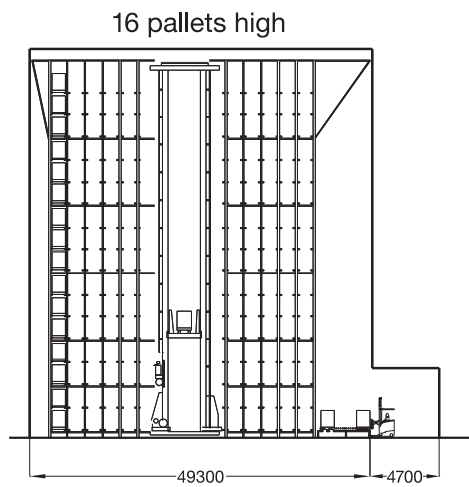
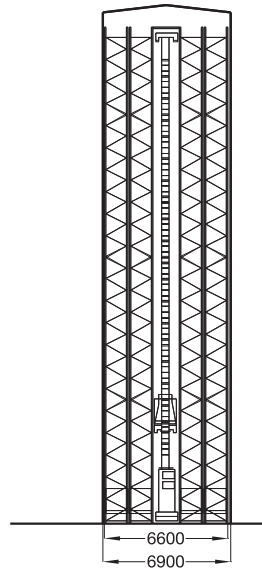
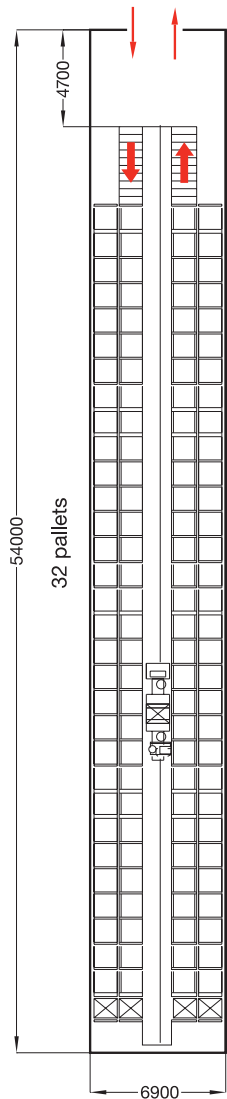
## Open face single deep example configuration



## Open face single deep AS/RS example for 2048 pallets

- Pallet and load size:  
1165mm (entry) x 1165mm x 1350mm (H)
- Floor area:  
54m x 8.9m = 480.6 sqm
- Total building volume:  
13457 cbm (28m high)
- Average floor area/pallet position:  
480.6 sqm/2048 pallets = 0.235 sqm/pallet position
- Average building volume/pallet position:  
13457 cbm/2048 pallets = 6.57 cbm/pallet

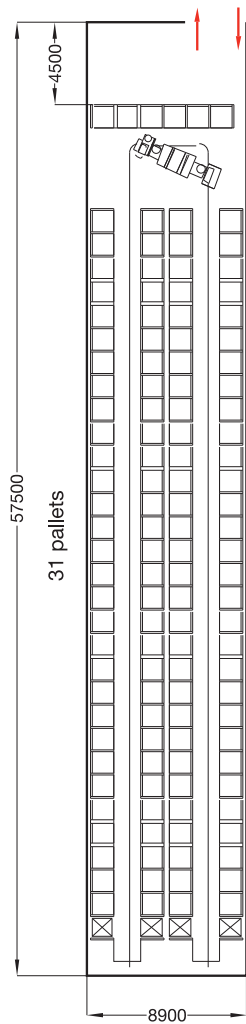
## Open face double deep example configuration



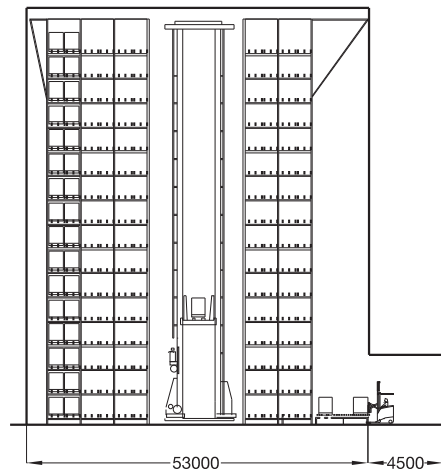
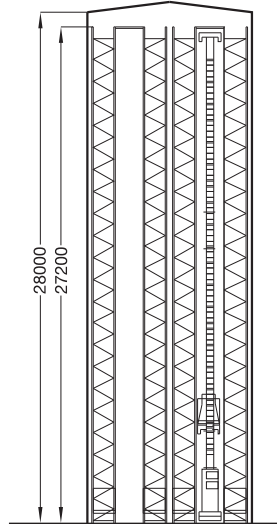
## Open face double deep AS/RS example for 2048 pallets

- Pallet and load size:  
1165mm (entry) x 1165mm x 1350mm (H)
- Floor area:  
54m x 6.9m = 372.6 sqm
- Total building volume:  
10433 cbm (28m high)
- Average floor area/pallet position:  
372 sqm/2048 pallets = 0.18 sqm/pallet position
- Average building volume/pallet position:  
10433 cbm/2048 pallets = 5.09 cbm/pallet

## Curve crane example configuration



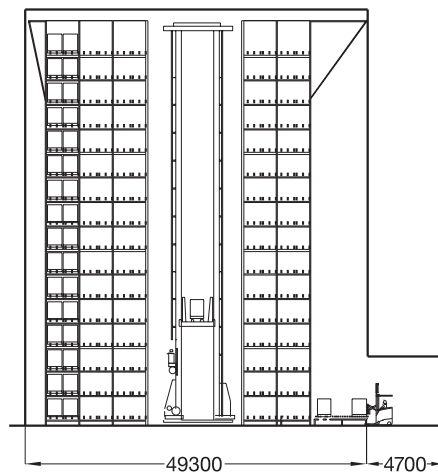
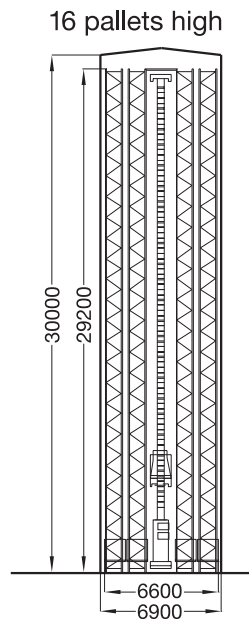
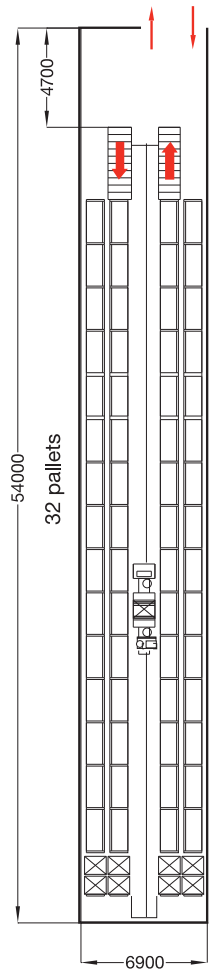
16 pallets high



## Closed face single deep with aisle changing crane example for 2080 pallets

- Pallet and load size:  
1165mm (entry) x 1165mm x 1350mm (H)
- Floor area:  
 $57.5\text{m} \times 8.9\text{m} = 511.75\text{ sqm}$
- Total building volume:  
14329 cbm (28m high)
- Average floor area/pallet position:  
 $511.75\text{ sqm}/2080\text{ pallets} = 0.246\text{ sqm/pallet position}$
- Average building volume/pallet position:  
 $14329\text{ cbm}/2080\text{ pallets} = 6.88\text{ cbm/pallet}$

## Closed face double deep example configuration



## Closed face double deep AS/RS example for 2048 pallets

- Pallet and load size:  
1165mm (entry) x 1165mm x 1350mm (H)
- Floor area:  
54m x 6.9m = 372.6 sqm
- Total building volume:  
11178 cbm (30m high)
- Average floor area/pallet position:  
372 sqm/2048 pallets = 0.182 sqm/pallet position
- Average building volume/pallet position:  
11178 cbm/2048 pallets = 5.46 cbm/pallet