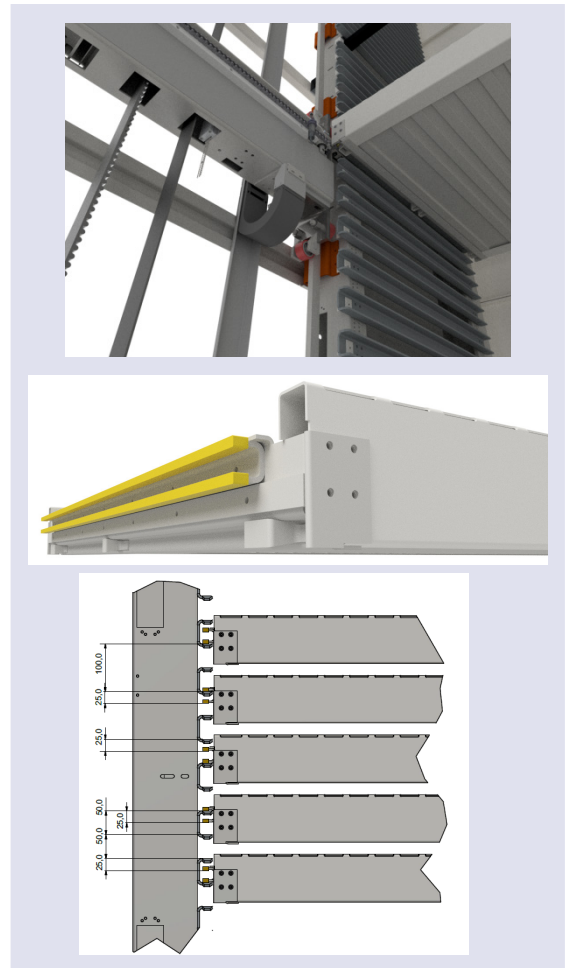# Tornado UHD
Advantages in brief

- **More storage capacity**
  - Lower lift casing and electrical cabin – wider range of movement
  - No space needed for buffering trays

- **Faster Tray switching**
  - Tray buffering with speedzones
  - Two tray locations in opening
  - No need for inner door

- **HOT, FTP and Mixed mode – all in one**
  - HOT with 25mm increments

- **More speed with less noice**
  - Servo motors instead of induction motor
  - Long lasting maintenance free roller guiding

- **Green technology**
  - Near zero friction guidance – less energy needed
  - Energy recovery system as plug and play option

- **Better performance**
  - TwinCat 3
  - 64bit Win10 LTSB

- **Industry 4.0**
  - Native IoT

Technical changes

More speed with less noice
New compact load handling device
New roller type vertical guiding
New vertical motor
New gearbox
New drives
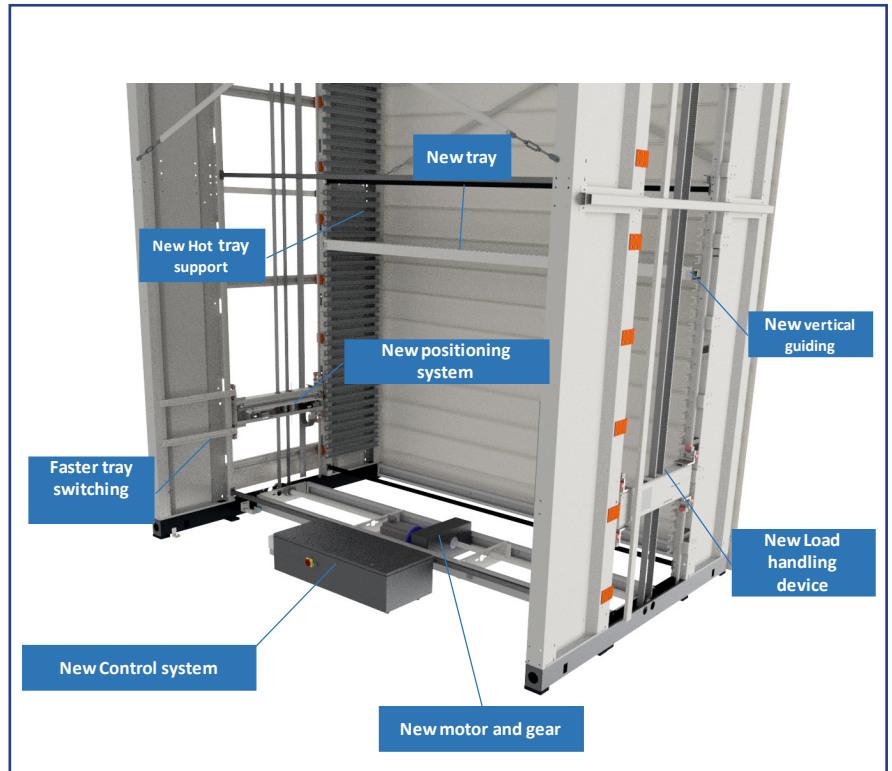New gear for horisontal movement

Hot 25mm increments
New Tray design
New Tray support design
New hot functionalities

Faster Tray switching
Extended safety with Speedzones
New height measurement

Better performance
TwinCat 3
Windows 64 bit
New ipc
Optimized plc and UI software

Tray switching

Two locations at opening
- Allowed load height for tray switching 200 mm
- Higher loads handled separately from lower position
- Putaway handled separately from lower position
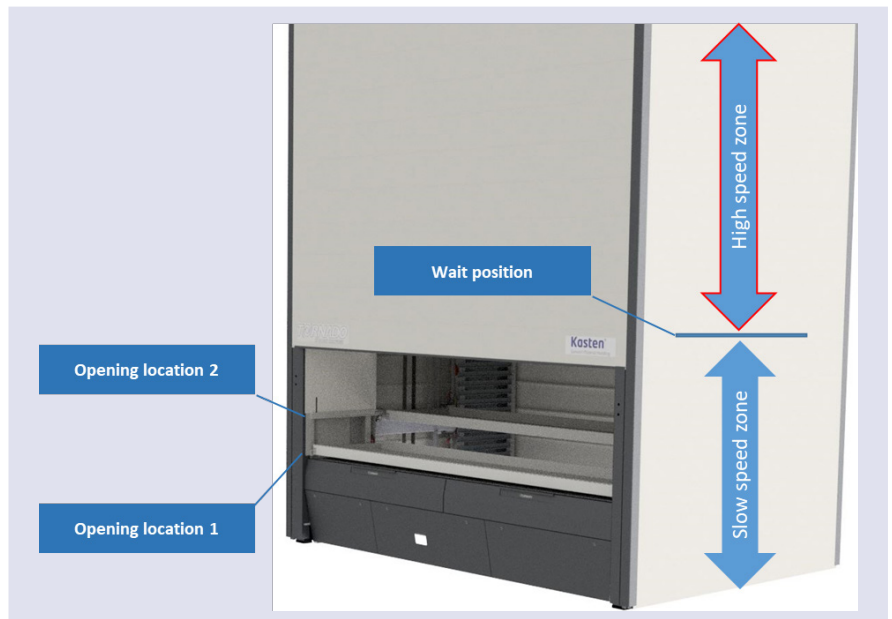- Tray locked when left at opening

Speedzones
- Slow speed zone with fast emergency stop near opening – outer safety grid stops movement
- Fast speed zone with slow security stop at safe distance from opening – inner safety grid stops movement

Wait position
- Lift do not access slow speed zone until pick is ready

Movement during pick do not need an inner door