

Reference Information

Construction of a new AS/RS for **Ford DEFTP** (Dearborn Engine & Fuel Tank Plant) in Dearborn, Michigan USA



Scope of Supply

- Storage/Retrieval (S/R) machines
- Conveyor Hardware and Controls
- Rack System and Trays
- **viad@t MFC** Material Flow Control software

Functional Description

Aisle 1 Mini-Load:

- Height: 15.81 ft. (4.82 m)
- (1) **viaspeed** S/R machine with (2,142) storage locations.
- Load stored: Steel trays
- Capacity: 660 lb. (300 kg.)
- (13) 6 in. (150 mm) tray levels
- (3) 12 in. (300 mm) tray levels
- (1) 18 in. (450 mm) tray level
- (1) horseshoe workstation.

Aisle 2 Mini-Load:

- Height: 13.52 ft. (4.12 m)
- (1) **viaspeed** S/R machine with (1,638) storage locations.
- Load stored: Steel trays
- Capacity: 660 lb. (300 kg.)
- (9) 6 in. (150 mm) tray levels
- (3) 12 in. (300 mm) tray levels
- (1) 18 in. (450 mm) tray level
- (1) horseshoe workstation.

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Customer Profile

Ford Motor Company entered the business world in 1903, when Henry Ford and 11 business associates signed the company's articles of incorporation. The pioneering industrialists gave birth to what was to become one of the world's largest corporations.

Few companies are as closely identified with the history and development of industry and society throughout the 20th century as Ford Motor Company.

The Ford DEFTP (Dearborn Engine & Fuel Tank Plant) in Dearborn, Michigan produces engines and fuel tanks used in many different Ford manufactured automobiles.

System Solution

The mini-load AS/RS installed at the Ford DEFTP facility is located on the 1st floor of their manufacturing facility and is used in a tool crib area to store all types of supplies necessary for the maintenance of the engine and fuel tank production lines. There are two (2) aisles of mini-load AS/RS, which when combined can store up to 3,780 steel trays of small parts.

Each **viaspeed** S/R machine is equipped with a **pin extractor load-handling device**. Each S/R machine is capable of a down-aisle speed of 590 ft./min (180 m/min.), a vertical speed of 197 ft./min. (60 m/min.) and a (6) second load-handling device cycle time

Trays are transported and distributed by a horseshoe conveyor loop at the end of each aisle. Orders are manually picked at the workstations without sacrificing performance. The **viad@t MFC** controls the S/R machines and associated horseshoe conveyors.



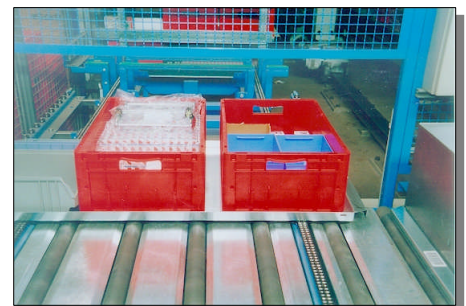
Mini-load with (2) **viaspeed** S/R machines with pin extractor load-handling devices.

The Result

Through a close collaborative effort, **viastore** and Ford developed a material handling system that could be easily justified.

It took just over six (6) months to engineer, build and install the system and have it become smoothly operational.

The fast and trouble-free use of the warehouse was made possible through intensive testing of all hardware and the **viad@t MFC** prior to installation.



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