

SCHADE Lagertechnik GmbH

RAIL WAGON UNLOADING SYSTEMS

'C' Frame Wagon Tippler



- Suitable up to 60 wagons unloaded per hour
- Single, tandem or triple wagon unloading
- Moving side-pad to cater for different wagon widths
- Ideal for use with Wagon Chargers & automatic wagon positioners
- Semi-automatic and Automated Operation
- High Throughput (> 5000 tph). Ideal for Export Terminal Operations

'O' Frame Rotary Wagon Tippler



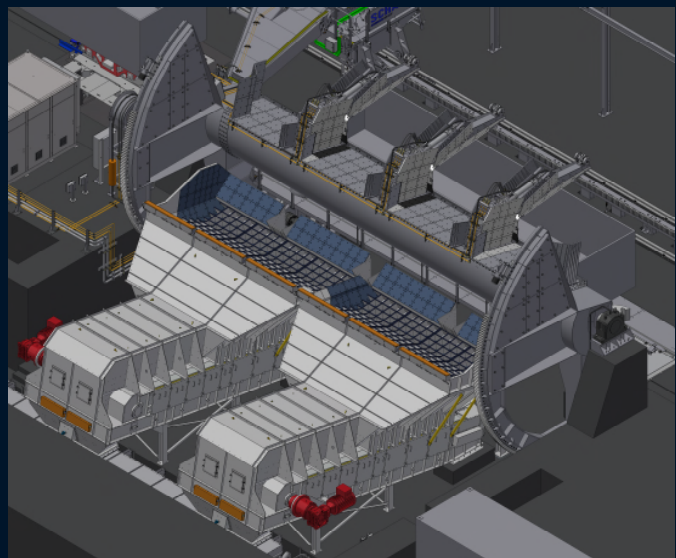
- Suitable up to 15 Cycles per hour
- Single Wagon Unloading
- Ideal for frozen material
- Ideal for wide range of Wagon types

'Pivot Frame' Tippler



- Suitable up to 25 wagons unloaded per hour
- Ideal for material in-take application (E.g. process plants)
- Reduced foundation construction costs
- Ideal for wide range of Wagon types

Shallow Foundation 'Pivot Frame' Tippler



- Maximum 25 wagons unloaded per hour
- Very shallow foundations (<2mtrs deep)
- Ideal for 'soft handling' & reduced material degradation (pellets & HBI)
- Reduced foundation construction costs
- Used with Aumund hybrid feeders

Rail Wagon Positioners & Chargers



- Capable of pulling long rakes of loaded wagons
- Suitable of operation with SCHADE Lagertechnik Wagon Tipplers (for auto-operation)
- Ideal for use with Bottom Dump Unloading facilities
- Can be equipped with either luffing arm or linear motion arm
- Suitable for use with Unit Train or Random Wagons

Wagon Traversers and Ejectors (Wagon Transborder and Pusher)



- Capable of carrying one, two or three wagons at a time
- Excellent for significant reduction of land usage
- Multiple Exit Track Options available
- Designed for maximum cycles per hour of 27 (i.e. 54 wagons per hour)
- Can accommodate empty or full (loaded) wagons

Typical Wagon Handling Rates

Tippler Design	Maximum Cycles per hour	Maximum Wagons Unloaded per hour	Indicative tph (based on 70t per wagon)
O' Frame (Single)	15	15	1,050
C' Frame (Single)	30	30	2,100
C' Frame (Tandem)	25	50	3,500
C' Frame (Triple)	20	60	4,200
Standard Pivot Frame	25	25	1,800
Shallow Foundation Pivot Frame	25	25	1,800

Note: Actual handling rates will depend on wagon weights & lengths, train length, material etc. and will be individually calculated for each project

Additional Engineering Services Offered

- **Engineering Assistance:**
 - Assistance during Feasibility & Engineering Studies
 - Typical General Arrangement Drawings
 - Equipment Specification advice
 - Plant throughput advice
 - Wagon Tippler Selection advice
 - Plant layout advice
- **Existing Equipment Engineering Services (In-service support)**
 - Plant Inspections
 - Equipment Audits
 - Detailed reports on equipment conditions
 - Engineered Upgrades (increased capacity, working life extensions, etc.)
 - Addition of Wagon Marshalling capability to existing Tipplers (reduced reliance on shunting locomotives)

SCHADE
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