

# Economic Mission Henan – Luxembourg

## Silk Road in the Air - Testimonial



## CTI Systems – Solutions for Excellence

# Company Overview



Handling Specialist  
Heavy and Bulky loads

200 employees  
mostly engineers

Located at Luxembourg  
since 1962

Average order income  
60 million € per year

## Added Value

- Experts in heavy & bulky loads
- All engineering capabilities in-house
- General Contracting
- 'State of the art' technologies
- Smart automated plants
- 60 years of proven expertise

⇒ **ONE  SUPPLIER**



# Strategic Industries & Applications



Aviation  
OEM & MRO,  
Air Cargo handling (ULD)



Intralogistics  
Steel & Aluminium  
Foil & Paper



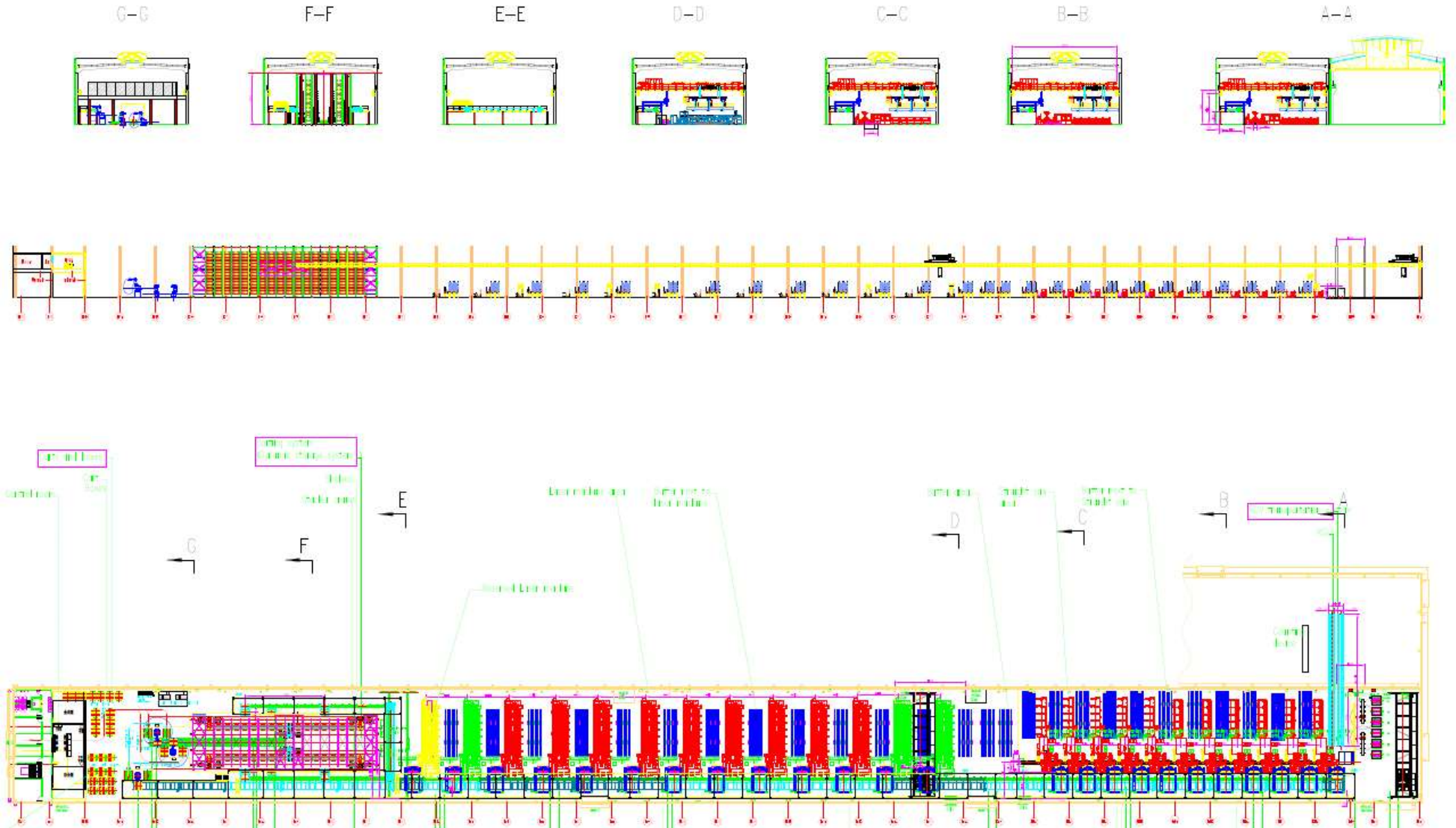
Surface treatment  
Commercial vehicles

- **Yutong** is the biggest **Bus** manufacturer in the World
- First contacts for refurbishment of Plant 2 in 2013
- Concepts developed together from 2014 till 2017
- Reference visits in Europe in 2015 and 2017
- **First Contract for Plant 2 in January 2018**

## **Automated Crane System for Pipe Handling and Storage in Sawing Hall**

- Floor Conveyers
- Handling Cranes
- Storage System
- Automation

# Zhengzhou Yutong – CTI Systems



# Zhengzhou Yutong – CTI Systems



Crane & Floor Conveyer in installation

Gripper before shipment by Air Cargo



# Zhengzhou Yutong – CTI Systems

- Yutong plan to built a new plant for 300 Busses/day
- Engineering Workshops for Plant 3 project started in 2017
- Ongoing concept development for Plant 3 planned till mid of 2019
- Contracts for Plant 3 expected starting Automn 2018

Area	Installation	Quotation	Priority	Next steps	Estimating	Handling interface	Weight	Length [mm]	Width [mm]	Height [mm]	Cycle time or Input/Output data
Assembly	Central Buffer before Final Assembly Line					Skid Buses	9 tons + features	12000	2600	4000	
	AGV for engines/bridge/axle handling					Skid engine/bridge/axle	2,5 tons including features				10min for 2 lines 12min for 4 lines
	Pre-Assembly Buses 12m					Skid 12m Buses	12 tons including features	15000	5000	3800	
	Pre-Assembly Buses 8-10m	107328	4		JSS	Bus body	12 tons	10000			10min for 2 lines 12min for 4 lines
	Storage system floor panel							9000	2500	15	
Welding	Conveyor/buffer skid welding					Welding Skid	Loaded skid: 10700 kg Empty skid: 1700 kg	11000	2000	600	10min
	Monorail system for side/rear/front/roof walls	107329				Side/rear/front/roof walls	< 1 ton	depends of parts type to be transported			10min
	AGV for Axle welding line					Welding table	6 tons	5000	2600	1800	10min
	Monorail system for Axle Tree delivery line					Tree	< 1 ton	2600	1500	1800	10min
	Storage of Welding tables					Crane	6 tons	12000	3500	700	
Painting	Conveyor through Paint Shop					Painting Skid	Loaded skid: 10700 kg Empty skid: 1700 kg	11000	2000	600	3,7min
	HBW and interface conveyors for painted parts	107515	2	1) Validate concept/ performance Rackstacker 2) Integration environment/connections 3) Establish Technical Spec 4) Budget	JPU	Painting Skid					
	HBW and interface conveyors for painted chassis	107531	2	1) Establish concept / lay-out 2) Establish Technical Spec 3) Budget	JPU	Chassi Skid					
	Buffer after painting and connection to Assembly line					Painting Skid	Loaded skid: 10700 kg Empty skid: 1700 kg	11000	2000	600	3,7min
E-coating	E-coat line	107533	3	1) Establish Concept/Lay-out 2) Setting up Cooperation CN SPR 3) Concept by Rolf	MGS	E-coat skid	Loaded skid: 10700 kg Empty skid: 1700 kg	11000	2000	600	3,7min
	HBW and interface conveyors for bodie in withe	107516	2	1) Lay-out Connections to Welding/E-coat 2) Establish Technical Spec 3) Budget	JPU	E-coat skid					
Profile sawing	Storage system & Saw delivery & Kitting Supermarket	106353	3	1) Establish Technical Spec 2) Validate lay-out 3) Budget	JPU	Racks	1500 kg + racks	10000	1000	750	Max. input weight = approx. 1200 tons/day Max. output weight = approx. 1300 tons/day
Chassis beam logistics	Storage system & Punching machines delivery					Racks	4256 kg	12000	464	332	Max. input weight = approx. 41 tons/day Max. output weight = approx. 41 tons/day
	Crane system and in&outfeed conveyors Thinplat	107532	5	Waiting info	JPU	Pallet					
Punching Hall	HBW for stamping parts	107534	5	Waiting info	JPU	skid					
	Thick sheet distribution center	107462				Pallet					
Sheet cutting Hall	Thin sheet distribution center	107463				Pallet					



# cargolux – CTI Systems



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## Maintenance Hangar

- Personal Safety devices
- Docks
- Cranes



# Luxair CARGO – CTI Systems



# Luxair CARGO – CTI Systems



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## Automated Air-Cargo Center

- High Bay Warehouse
- Temperature Controlled Storage Places
- Loading Docks
- WMS Software





Member of  
Paul Wurth  
Group

# Solutions for Excellence

## Thank You