

# Aviation MRO





You can find further information about  
CTI Systems and the solution we offer  
in following brochures:



Aviation MRO

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Aviation OEM

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Paint Systems

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Intralogistics

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Software & Automation (WMS & MES)

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*Crane systems, teleplatforms, TAIL XS, maintenance dockings, stands, engine handling systems, aerial jib platforms, fall arresters.*



# CTI Systems

Part of the Paul Wurth Group, the Luxembourg-based company with about 190 employees has over 55 years of experience in the field of intralogistics, with further divisions operating in the fields of aviation and surface treatment.

CTI Systems is a leading supplier of integrated automated handling and processing systems, with a focus on heavy loads. Our portfolio includes automated material handling solutions, aircraft servicing systems, storage systems, surface treatment installations, assembly lines, as well as software solutions for production control or the optimisation of storage & distribution systems (MES & WMS), including the integration of machinery from other suppliers.

As a company, CTI Systems is large enough to provide highly complex turnkey installations, yet small enough to have direct management contact allowing quick and dependable decision-making.





Member of  
Paul Wurth  
Group

# System supplier for MRO solutions

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CTI Systems is a leading supplier in the field of aircraft maintenance, repair and overhaul (MRO) with over 55 years of experience in development and practice.

Our customised systems are in service with numerous well-known aircraft builders, airlines and MRO companies. CTI Systems provides turnkey solutions which enable faster turnaround times.







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**CTI Systems'  
cranes - the  
economical solution  
for complex  
transport tasks**







# Crane systems

## DIFFERENT TYPES OF CRANE SYSTEMS FOR HEAVY AND BULKY LOADS

Safe and simple handling of components is essential for the efficient maintenance of aircraft. With CTI Systems' cranes, even the most complex material handling tasks can be realised.

- Interlockable bridge cranes allowing the transfer of teleplatform carriers or hoist carriers throughout the entire hangar by crossing over between adjacent crane bridges.
- Multi-purpose cranes for all kinds of transportation in maintenance centres.
- Overhead travelling cranes mounted on stationary crane girders and applied mainly in workshops.
- Automatic cranes (process cranes) as integrated system modules in coating or production processes.

CTI Systems' overhead cranes, including grabs and load-suspension gears, are tailored to your individual application and equipped with a specific degree of automation depending on your requirements. CTI Systems develops the perfect concept for your intended use.



# Teleplatforms

## FLEXIBILITY AT ANY HEIGHT

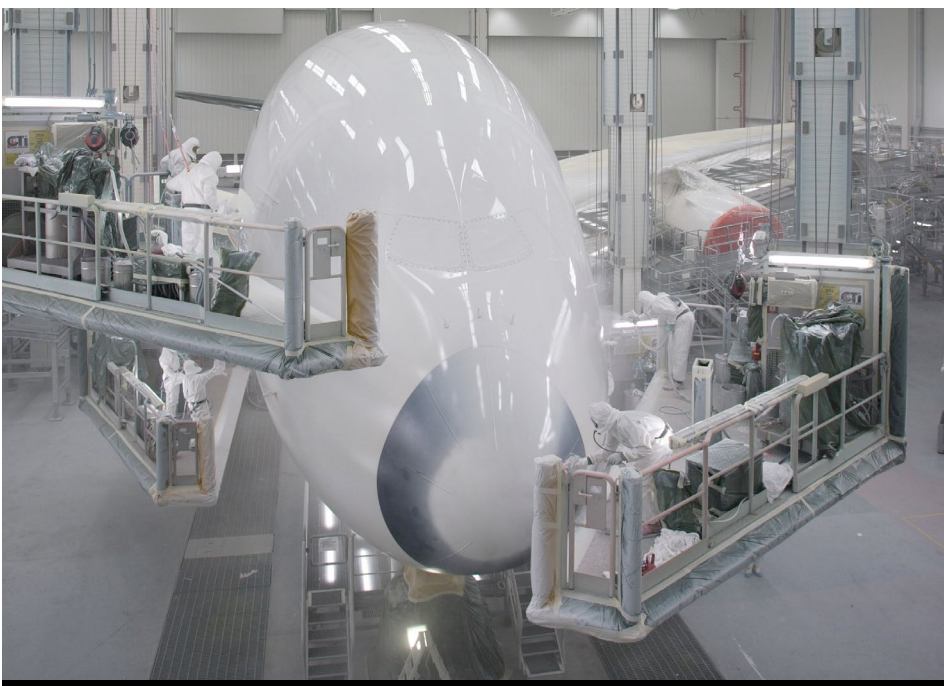
Especially developed for the aviation industry, CTI Systems' teleplatforms improve performance in the following areas:

- Production and assembly of aircraft
- Line maintenance of aircraft
- Aircraft overhaul
- Cleaning of aircraft, paint removal, masking and painting

Our teleplatforms comprise a working platform, a telescoping mast and an underslung carrier structure which is connected to an overhead crane (OHC). It can be easily entered when lowered and is then raised to the desired working level. This allows fast, easy and safe access to every part of the aircraft. Integrated anti-collision systems assist the operator to prevent aircraft damage. CTI Systems' teleplatforms may be fitted with all the required equipment and media supplies:

- Hot and cold water
- Compressed air and breathing air
- Electrical sockets
- Lighting
- Railings with access door and fall arrester
- Safety ropes for emergency exits

CTI Systems' teleplatforms can be used in all areas of the hangar covered by the crane system. Crane interlocking devices allow interchangeability between hoist trolleys and teleplatforms.







**Teleplatforms from  
CTI Systems  
provide quick and  
safe access to  
elevated work  
levels**



**CTI Systems' Tail XS  
provide maximum  
efficiency, even in  
low ceiling hangars**







# CTI Systems' Tail XS

## THE IDEAL SOLUTION FOR LOW HANGARS

The innovative CTI Systems' Tail-XS offers maintenance service access up to the aircraft VTP stabilizer inside hangars with limited ceiling heights using integrated multi-level Tail dock in combination with a CTI teleplatform. All necessary media and tools can be provided up to the different platform levels guaranteeing the highest degree of flexibility for the works on the entire upper aircraft surface.

Latest LEED (Leadership in Energy and Environmental Design) hangar design requirements on resource-efficient buildings can be fulfilled due to the optimised hangar volume. Other advantages will be the lowered building investment costs such as minimised building occupancy charges.



# Docking systems

## FOR MAINTENANCE DEPTHS UP TO D-CHECKS

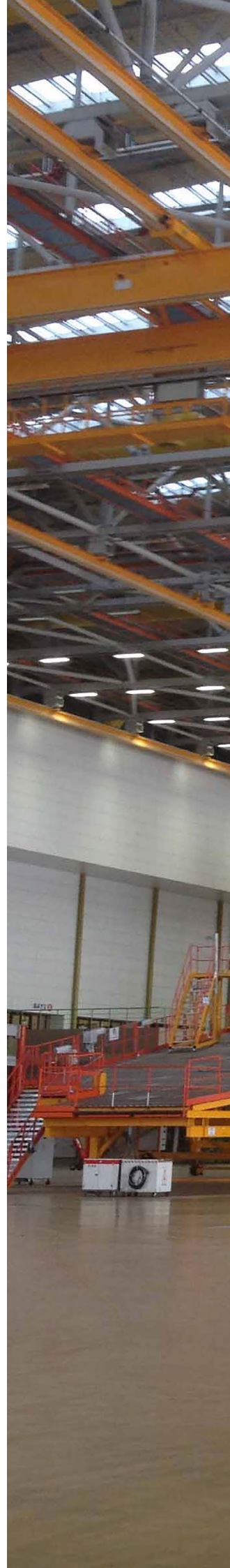
CTI Systems' dockings are the professional solution for your aircraft inspection, maintenance and repair access. They envelope large areas of the aircraft, provide work levels where needed and can be combined used along with CTI teleplatforms and CTI lightweight mobile stands.

Any individual solution, either ground supported or roof suspended, can be delivered to meet customers' specific needs. The CTI docking design is produced to ensure shortest possible aircraft downtimes.

Adjustable, but stable platforms will be arranged all along aircraft perimeter in order to enable simultaneous work at any required service area. Media supplies such as water, compressed air, electricity, lighting, etc. can be installed where needed.

Exchange of larger aircraft components and functional tests will be granted due to integrated sliding or folding platforms and the foreseen height adjustment possibilities.

The CTI design takes into consideration the relevant aircraft dimensions and secure working conditions: folding railings and fall-prevention equipment ensure that your operator works in perfect safety.







**CTI Systems'  
maintenance docks  
reduce the ground  
time of your aircraft**



**CTI Systems' stands  
embody decades  
of experience in  
development and  
practice**







# Stands

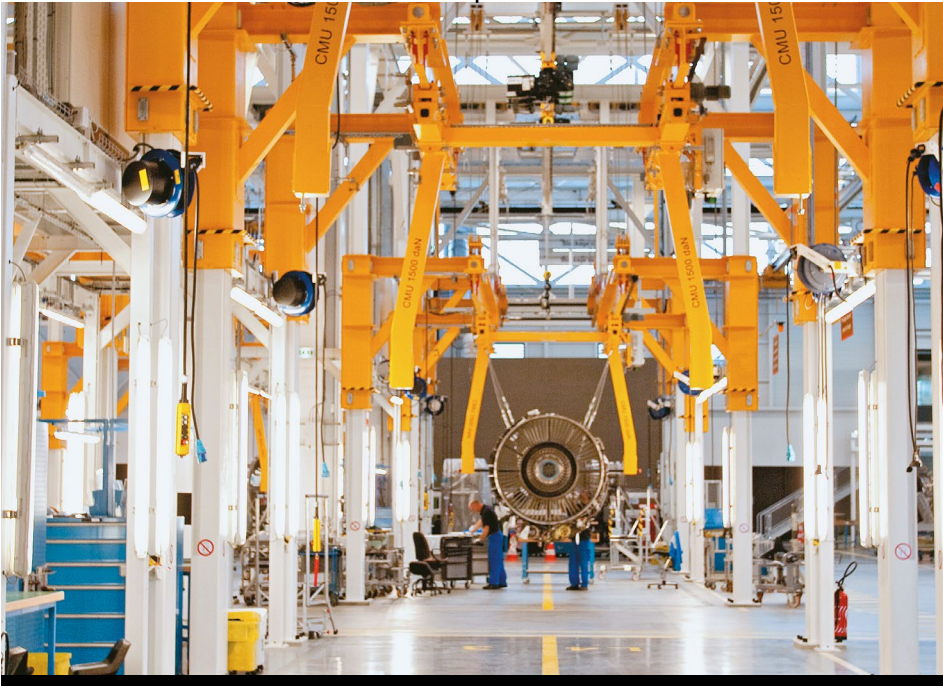
## ERGONOMIC WORKING POSITION GUARANTEED

CTI Systems supplies lightweight stands, as part of a more complex docking system, for aircraft inspection, maintenance and servicing.

CTI systems' stands are made of high-quality aluminium or of combined steel and aluminium structures. They are fitted with heavy-duty wheels, spindletype supports, edge-protection cushions and sturdy aluminium railings, thus ensuring that all maintenance and production work on the aircraft can be carried out ergonomically and safely.

Our stands are variable in height, compact in design and have a low centre of gravity.





# Engine handling in MRO & test centres

## FAST AND SAFE

Beyond the proven access solutions for aircraft MRO and painting, aircraft engine handling is in CTI Systems' focus. Various handling installations for engine handling in MRO and test centres are already successfully operating.

CTI Systems offers customised mono-rails and bi-rail carrier systems, either roof supported or with floor mounted gantry design.

Both design variants can provide either manual or semi-automated engine transfer. Individual system components can be applied either for single work stations or alternatively configured to an overall integrated transfer and workstation concept.







**Combined crane and  
monorail systems by  
CTI Systems  
ensure efficient  
material flow**





# Aerial Jib Platform

## DEDICATED SOLUTIONS WITH ON-BOARD EQUIPMENT FOR NARROW-BODY AIRCRAFT

The Aerial Jib Platform (AJP) is an advanced aircraft access solution, specially developed for aircraft painting purposes or similar related tasks such as sanding, polishing, cleaning, sealing or touch painting. Especially when roof suspended teleplatforms cannot be applied at existing premises, the AJP may be an optional solution for your tasks. The AJP fits for narrow body aircraft including A320 & B737 series as well as similar sized aircraft.

This special tool suits best for hangars with low roof structure or lightweight hangar structures. In order to guarantee a complete coverage of the narrow body aircraft, a total of four AJP's shall be installed. In operation mode, all AJP's shall be fixed on its dedicated location near the aircraft. The hangar door located AJP's will be mobile on floor integrated rails, allowing quick & safe hangar entry & leave. There is no carrier moving along aircraft envelope during operation, thus minimizing the aircraft damage risk.





# Fall arrester

## **MAXIMUM SAFETY DURING MAINTENANCE WORK**

The CTI Systems' FP30 fall arrester with radio-controlled hook-lowering function and controlled winding speed is used for secure working environment during aircraft servicing and painting work.

The FP30 is suspended from crane girders, rails, hangar ceilings or other fixed points with the rope wound up. Remotely controlled from the hangar floor, the hook is lowered to fix it to the worker's safety harness.

On completion of work, the operator releases the hook from his harness and the rope is re-wound at a controlled speed by the motorised winch. This prevents the hook from striking the housing violently and causing damage to the device.

With the FP30 there are no more dangling ropes in the hangar. Crane ways are no longer blocked and the cranes can travel freely.



# Contact data

Whenever you are looking for customised systems in the field of aircraft maintenance, repair & overhaul, please do not hesitate to contact us at CTI Systems. Together we will find the solution best suiting your specific needs.

We look forward to hearing from you.

## **CTI Systems S.à r.l.**

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